REF: 03-RF-00323; DWF-03-03

Rocky Flats Environmental Technology Site

TYPE 1
RECONNAISSANCE LEVEL CHARACTERIZATION REPORT (RLCR)

AREA 3 GROUP 5 CLOSURE PROJECT
Buildings T115A, T115B, AND T115C

REVISION 0

February 25, 2003

CLASSIFICATION REVIEW NOT REQUIRED PER EXEMPTION NUMBER CEX-005-02

ADMIN RECORD

IA-A-001350

1/67

TYPE 1
RECONNAISSANCE LEVEL CHARACTERIZATION REPORT (RLCR)

AREA 3 GROUP 5 CLOSURE PROJECT
Buildings T115A, T115B, AND T115C

REVISION 0

February 25, 2003

Reviewed by: _____ Date: 2-26-03
Don Risoli, Quality Assurance

Reviewed by: _____ Date: 2/26/03
D.P. Snyder, RISS ESH&Q Manager

Approved by: _____ Date: 02/27/03
Cameron Freiboth, K-H D&D Project Manager

TABLE OF CONTENTS

ATTACHMENTS

ABBREVIATIONS/ACRONYMS

ACM	Asbestos containing material
Be	Beryllium
CDPHE	Colorado Department of Public Health and the Environment
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act
$DCGL_{EMC}$	Derived Concentration Guideline Level – elevated measurement comparison
$DCGL_W$	Derived Concentration Guideline Level – Wilcoxon Rank Sum Test
D&D	Decontamination and Decommissioning
DDCP	Decontamination and Decommissioning Characterization Protocol
DOE	U.S. Department of Energy
DPP	Decommissioning Program Plan
DQA	Data quality assessment
DQOs	Data quality objectives
EPA	U.S. Environmental Protection Agency
FDPM	Facility Disposition Program Manual
HVAC	Heating, ventilation, air conditioning
HSAR	Historical Site Assessment Report
IHSS	Individual Hazardous Substance Site
IWCP	Integrated Work Control Package
K-H	Kaiser-Hill
LBP	Lead-based paint
LLW	Low-level waste
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
NORM	Naturally occurring radioactive material
NRA	Non-Rad-Added Verification
OSHA	Occupational Safety and Health Administration
PARCC	Precision, accuracy, representativeness, comparability and completeness
PCBs	Polychlorinated Biphenyls
PDS	Pre-demolition survey
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RFFO	Rocky Flats Field Office
RLC	Reconnaissance Level Characterization
RLCR	Reconnaissance Level Characterization Report
RSP	Radiological Safety Practices
SVOCs	Semi-volatile organic compounds
TCLP	Toxicity Characteristic Leaching Procedure
TSA	Total surface activity
VOCs	Volatile organic compounds

EXECUTIVE SUMMARY

A Reconnaissance Level Characterization (RLC) was performed to enable facility "Typing" per the DPP (10/8/98) and compliant disposition and waste management of the Area 3, Group 5 facilities (i.e., T115A, T115B and T115C). Because these facilities are anticipated Type 1 facilities, the characterization was performed in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP). All facility surfaces were characterized in this RLC, including the interior and exterior surfaces (i.e., floor, walls, ceiling and roof). Environmental media beneath and surrounding the facility was not within the scope of this RLCR and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA.

The RLC encompassed both radiological and chemical characterization to enable compliant disposition and waste management pursuant to the D&D Characterization Protocol (MAN-077-DDCP). The characterization built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Report.

Results indicate that no radiological contamination exists in excess of the PDSP unrestricted release limits of DOE Order 5400.5. All beryllium sample results were less than 0.1 $\mu g/100cm^2$. All bulk samples of building materials suspected of containing asbestos were "None Detected". All demolition debris will be managed in compliance with regulations governing PCBs (40 CFR 761), and Environmental Compliance Guidance #27, *Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal,* as applicable. All concrete surfaces can be used as backfill on site in accordance with the RFCA RSOP for Recycling Concrete.

Based upon data presented in this RLCR, the Area 3, Group 5 facilities are considered Type 1 facilities. To ensure the facilities remain free of contamination and RLC data remain valid, Level 2 isolation controls have been established, and the facility has been posted accordingly.

1 INTRODUCTION

A Reconnaissance Level Characterization (RLC) was performed to enable compliant disposition and waste management of the Area 3, Group 5 facilities (i.e., T115A, T115B and T115C). Because these facilities are anticipated Type 1 facilities, a PDS characterization was performed. All facility surfaces were characterized in this RLC, including the interior and exterior surfaces of the facility (i.e., floor, walls, ceiling and roof). Environmental media beneath and surrounding the facilities was not within the scope of this RLC Report (RLCR) and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA.

As part of the Rocky Flats Environmental Technology Site (RFETS) Closure Project, numerous facilities will be removed, among these are the Area 3, Group 5 facilities. The location of these facilities is shown in Attachment A, *Facility Location Map*. These facilities no longer support the RFETS mission and require removal to reduce Site infrastructure, risks and/or operating costs.

Before these facilities can be removed, a Pre-Demolition Survey (PDS) must be conducted; this document presents the PDS results. The PDS was conducted pursuant to the Decontamination and Decommissioning Characterization Protocol (MAN-077-DDCP) and the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP). The PDS built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Report.

1.1 Purpose

The purpose of this report is to communicate and document the results of the RLC effort. An RLC is performed before Type 1 building demolition to define the pre-demolition radiological and chemical conditions of a facility. Pre-demolition conditions are compared with the unrestricted release limits for radiological and non-radiological contaminants. RLC results will enable project personnel to make final disposition decisions, develop related worker health and safety controls, and estimate waste volumes by waste types.

1.2 Scope

This report presents the pre-demolition radiological and chemical conditions of the Area 3, Group 5 facilities. Environmental media beneath and surrounding the facility is not within the scope of this RLCR and will be addressed using the Soil Disturbance Permit process and in compliance with RFCA.

1.3 Data Quality Objectives

The Data Quality Objectives (DQOs) used in designing this RLC were the same DQOs identified in the Pre-Demolition survey Plan for D&D Facilities (MAN-127-PDSP.) Refer to section 2.0 of MAN-127-PDSP for these DQOs.

6

2 HISTORICAL SITE ASSESSMENT

A facility-specific Historical Site Assessment (HSA) was conducted to understand the facility histories and related hazards. The assessment consisted of facility walk-downs, interviews, and document review, including review of the Historical Release Report (refer to the D&D Characterization Protocol, MAN-077-DDCP). These assessments were used to identify data gaps and needs, and to develop radiological and chemical characterization plans. The facility-specific HSAs were documented in a *Historical Site Assessment Report (HSAR) for Area 3, Group 5 facilities*, dated June 2002, Revision 0. Refer to Attachment B, *Historical Site Assessment Report,* for a copy of the Area 3, Group 5 HSAR. In summary, the HSAR identified no potential for radiological and chemical hazards in the Area 3, Group 5 facilities.

3 RADIOLOGICAL CHARACTERIZATION AND HAZARDS

The Area 3, Group 5 facilities were characterized for radiological hazards per the PDSP. Radiological characterization was performed to define the nature and extent of radioactive materials that may be present on the facility surfaces. Measurements were performed to evaluate the contaminants of concern. Based upon a review of historical and process knowledge, building walk-downs, and MARSSIM guidance, a Radiological Characterization Plan was developed during the planning phase that describes the minimum survey requirements (refer to the RISS Characterization Project files).

Three radiological survey packages were developed for the interior of the Area 3, Group 5 facilities. The survey packages were developed in accordance with Radiological Safety Practices (RSP) 16.01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation and Closure*. Total surface activity (TSA), removable surface activity (RSA), and scan measurements were collected in accordance with RSP 16.02 *Radiological Surveys of Surfaces and Structures*. Radiological survey data were verified, validated and evaluated in accordance with RSP 16.04, *Radiological Survey/Sample Data Analysis*. Quality control measures were implemented relative to the survey process in accordance with RSP 16.05, *Radiological Survey/Sample Quality Control*.

One hundred twenty-two (122) TSA measurements (45 random, 30 biased, 40 equipment and 7 QC) and one hundred fifteen (115) RSA measurements (45 random, 30 biased, 40 equipment) were performed, and a minimum of 5% of the facility surfaces were scanned on the interior of the facility. The RLC data confirmed that the facility does not contain radiological contamination above the surface contamination guidelines provided in the PDSP. Radiological survey data, statistical analysis results, and survey locations are presented in Attachment C, *Radiological Data Summary and Survey Maps*. The radiological survey unit packages are maintained in the RISS Characterization Project files. Level 2 isolation control postings are displayed on the buildings to ensure no radioactive materials are introduced.

The exterior radiological surveys for the Area 3, Group 5 facilities were performed as part of the RISS West Side Exterior PDS strategy effort (authorized by Department of Energy letter, *02-DOE-01598*, dated December 13th, 2002 and approved by CDPHE letter, *RE: Proposed Deviations From The Pre-Demolition Survey Plan (PDSP)*, dated January 27, 2003; refer to RISS Characterization Project File for letter copies). The RISS West Side exterior building radiological surveys and locations can be found in survey unit package EXT-B-001, *RISS West Side Building Exteriors.* Six (6) biased TSA measurements, six (6) biased RSA measurements, and a one (1) square meter scan at each of the six TSA/RSA locations was performed at biased locations on the exterior surfaces of Area 3, Group 5 facilities. In addition, scan surveys were performed on 100 percent of the stairs, ramps, handrails and exterior door surfaces of Area 3, Group 5 facilities. The RLC data collected in exterior survey unit package EXT-B-001 confirmed that the exterior surfaces of these facilities do not contain radiological contamination above the surface contamination guidelines provided in the PDSP. Radiological survey data, statistical analysis results, and survey map locations for the West Side Exterior survey unit package EXT-B-001 are maintained in the RISS Characterization Project files.

4 CHEMICAL CHARACTERIZATION AND HAZARDS

The Area 3, Group 5 facilities were characterized for chemical hazards per the PDSP. Chemical characterization was performed to determine the nature and extent of chemical contamination that may be present on, or in the facilities. Based upon a review of historical and process knowledge, visual inspections, and PDSP DQOs, additional sampling needs were determined. A Chemical Characterization Plan (refer to RISS Characterization Project files) was developed during the planning phase that describes sampling requirements, the justification for the sample locations and estimated sample numbers. Contaminants of concern included asbestos, beryllium, RCRA/CERCLA constituents, and PCBs. Refer to Attachment D, *Chemical Data Summaries and Sample Maps,* for details on sample results and sample locations.

4.1 Asbestos

Surveys of building materials suspected of containing asbestos were conducted for the Area 3, Group 5 facilities in accordance with the RLCP. A CDPHE-certified asbestos inspector conducted the inspection and sampling in accordance with the *Asbestos Characterization Protocol, PRO-563-ACPR, Revision 1.* Building materials suspected of containing asbestos were identified for sampling at the discretion of the inspector.

A comprehensive, invasive asbestos inspection was conducted to determine the presence of friable and non-friable asbestos containing building materials. All bulk samples of building materials suspected of containing asbestos were "None Detected". Asbestos laboratory analysis data and sample location maps are contained in Attachment D, *Chemical Data Summaries and Sample Maps.*

8

4.2 Beryllium (Be)

Based on the HSAR and personnel interviews, the Area 3, Group 5 facilities are anticipated Type 1 facilities. There was not, however, adequate historical and process knowledge to conclude that beryllium was not used or stored in these buildings. Therefore, biased beryllium sampling was performed in accordance with the PDSP and the *Beryllium Characterization Procedure, PRO-536-BCPR, Revision 0, September 9, 1999.* Biased sample locations corresponded with the most probable areas of dust accumulation (including beryllium dust), assuming airborne deposition.

All beryllium smear sample results were less than 0.1 $\mu g/100cm^2$ and meet the unrestricted release limits. Beryllium laboratory sample data and location maps are contained in Attachment D, *Chemical Data Summaries and Sample Maps.*

4.3 RCRA/CERCLA Constituents [including metals and volatile organic compounds (VOCs)]

Based on a review of the HSAR and facility walk-downs, these facilities have no history or evidence of RCRA/CERCLA contamination. Therefore, RCRA/CERCLA constituent sampling was not performed in these facilities as part of the RLC.

Sampling for lead in paint in the Area 3, Group 5 facilities were not performed. Environmental Waste Compliance Guidance #27, *Lead-based Paint (LBP) and Lead-based paint Debris Disposal*, states that LBP debris generated outside of currently identified high contamination areas shall be managed as non-hazardous (solid) wastes, and additional analysis for characteristics of hazardous waste derived from LBP is not a requirement for disposal.

The Area 3, Group 5 facilities may contain RCRA regulated materials such as fluorescent lights and mercury switches. A thorough inspection of each facility will be made, and all regulated materials will be removed prior to demolition.

4.4 Polychlorinated Biphenyls (PCBs)

Based on the HSARs, interviews and facility walk-downs of the Area 3, Group 5 facilities, no PCB-containing equipment was ever present in the buildings. Therefore, PCB sampling was not performed in the Area 3, Group 5 facilities as part of this RLC.

Based on the age of Area 3, Group 5 facilities (constructed after 1980), paints used do not contain PCBs. Because the Area 3, Group 5 facilities may contain fluorescent light ballasts containing PCBs, fluorescent light fixtures will be inspected to identify PCB ballasts during removal operations. PCB ballasts will be identified based on factors such as labeling (e.g., PCB-containing and non PCB-containing), manufacturer, and date of manufacturing. Ballasts that do not indicate non PCB-containing are assumed to be PCB-containing. Ballasts that are identified as PCB containing and are leaking will be removed prior to demolition. Non-leaking PCB ballasts can remain in the building and be disposed of as PCB Bulk Product Waste.

5 PHYSICAL HAZARDS

Physical hazards associated with the Area 3, Group 5 facilities consist of those common to standard industrial environments and include hazards associated with energized systems, utilities, and trips and falls. The facilities have been relatively well maintained and are in good physical condition, and therefore, do not present hazards associated with building deterioration. Physical hazards are controlled by the Site Occupational Safety and Industrial Hygiene Program, which is based on OSHA regulations, DOE orders, and standard industry practices.

6 DATA QUALITY ASSESSMENT

Data used in making management decisions for decommissioning of the Area 3, Group 5 facilities, and consequent waste management, are of adequate quality to support the decisions documented in this report. The data presented in this report (Attachments C and D) were verified and validated relative to DOE quality requirements, applicable EPA guidance, and original DQOs of the project.

In summary, the Verification and Validation (V&V) process corroborates that the following elements of the characterization process are adequate:

- the *number* of samples and surveys;
- the *types* of samples and surveys;
- the sampling/survey process as implemented "in the field"; and,
- the laboratory analytical process, relative to accuracy and precision considerations.

Details of the DQA are provided in Attachment E.

7 DECOMMISSIONING WASTE TYPES AND VOLUME ESTIMATES

The demolition and disposal of the Area 3, Group 5 facilities will generate a variety of wastes. Estimated waste types and waste volumes are presented below. All waste can be disposed of as sanitary waste, except PCB Bulk Product Waste. There is no radioactive or hazardous waste. PCB ballasts will be managed pursuant to PCB abatement and waste management procedures.

Waste Volume Estimates and Material Types

Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM (cu ft)	Other Waste
T115A	0	1100	1600	2100	2300	0	None
T115B	0	275	250	350	450	0	None
T115C	0	600	800	1100	1400	0	None

8 FACILITY CLASSIFICATION AND CONCLUSIONS

Based on the analysis of radiological, chemical and physical hazards, the Area 3, Group 5 facilities are classified as RFCA Type 1 facilities pursuant to the RFETS Decommissioning Program Plan (DPP; K-H, 1999). The Type 1 classification is based on a review of historical and process knowledge, and newly acquired RLC/PDS data.

The RLC of the Area 3, Group 5 facilities was performed in accordance with the DDCP and PDSP requirements. All PDSP DQOs were met, and all data satisfied the PDSP DQA criteria. The Area 3, Group 5 facilities do not contain radiological or hazardous wastes. Any PCB ballasts will be managed and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations. All demolition debris will be managed in compliance with regulations governing PCBs (40 CFR 761), and Environmental Compliance Guidance #27, *Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal,* as applicable. Environmental media beneath and surrounding the facility will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA. All concrete surfaces can be used as backfill on site in accordance with the RFCA RSOP for Recycling Concrete.

To ensure the Area 3, Group 5 facilities remain free of contamination and RLC data remain valid, Level 2 isolation controls have been established with the required postings to prevent the inadvertent introduction of contaminants.

9 REFERENCES

DOE/RFFO, CDPHE, EPA, 1996. *Rocky Flats Cleanup Agreement (RFCA),* July 19, 1996.

DOE Order 5400.5, *"Radiation Protection of the Public and the Environment."*

EPA, 1994. *"The Data Quality Objective Process,"* EPA QA/G-4.

K-H, 1999. *Decommissioning Program Plan,* June 21, 1999.

MAN-131-QAPM, *Kaiser-Hill Team Quality Assurance Program,* Rev. 1, November 1, 2001.

MAN-076-FDPM, *Facility Disposition Program Manual,* Rev. 3, January 1, 2002.

MAN-077-DDCP, *Decontamination and Decommissioning Characterization Protocol,* Rev. 3, July 15, 2002.

MAN-127-PDSP, *Pre-Demolition Survey Plan for D&D Facilities,* Rev. 1, July 15, 2002.

MARSSIM - *Multi-Agency Radiation Survey and Site Investigation Manual,* December 1997 (NUREG-1575, EPA 402-R-97-016).

PRO-475-RSP-16.01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation, and Closure,* Rev. 1, May 22, 2001.

PRO-476-RSP-16.02, *Pre-Demolition (Final Status) Radiological Surveys of Surfaces and Structures,* Rev. 1, May 22, 2001.

PRO-477-RSP-16.03, *Radiological Samples of Building Media,* Rev. 1, May 22, 2001.

PRO-478-RSP-16.04, *Radiological Survey/Sample Data Analysis for Final Status Survey,* Rev. 1, May 22, 2001.

PRO-479-RSP-16.05, *Radiological Survey/Sample Quality Control for Final Status Survey,* Rev. 1, May 22, 2001.

PRO-563-ACPR, *Asbestos Characterization Procedure,* Revision 0, August 24, 1999.

PRO-536-BCPR, *Beryllium Characterization Procedure,* Revision 0, August 24, 1999.

RFETS, *Environmental Waste Compliance Guidance #25, Management of Polychlorinated Biphenyls (PCBs) in Paint and Other Bulk Product Waste During Facility Disposition.*

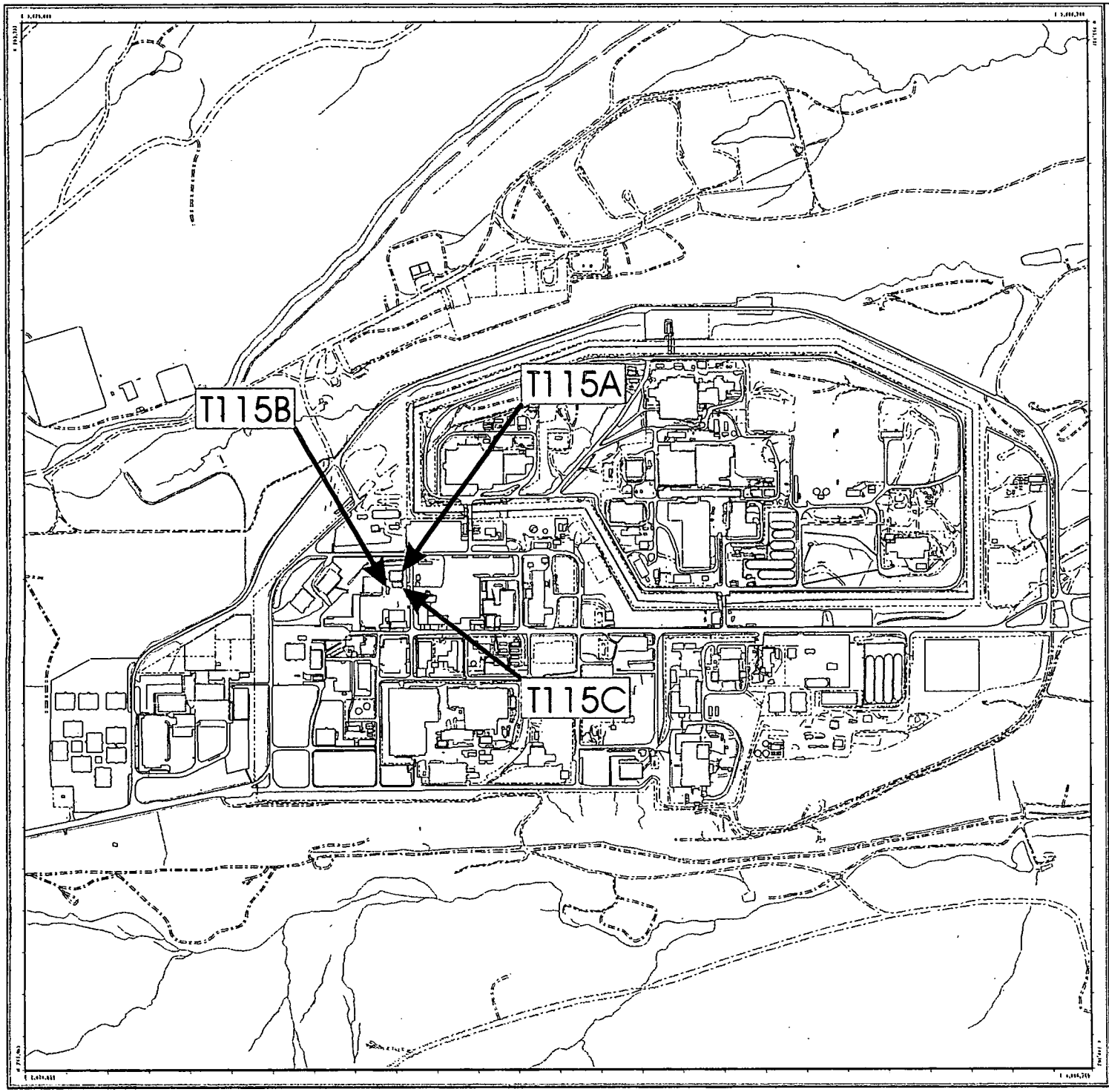
RFETS, *Environmental Waste Compliance Guidance #27, Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal.*

RFCA Standard Operation Protocol for Recycling Concrete, September 28, 1999.

Historical Site Assessment Report for the Area 3 Group 5 Facilities, dated June 2002, Revision 0.

ATTACHMENT A

Facility Location Map



Building Cluster
T115A, T115B, & T115C

Standard Map Features

- Buildings and other structures
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas.
Digitized from the orthophotographs. 1/95

Scale – 1 : 1240
1 inch represents approximately 1038 feet
250 0 500 1000ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

GIS Dept. 303-966-7707

Prepared by: DynCorp — THE ART OF TECHNOLOGY

Prepared for: KAISER-HILL COMPANY

MAP ID: FY 2002

February 18, 2003

N:_Svr w:\projects\fy2002\02-0589\overview_A3\G5.cdr

ATTACHMENT B

Historical Site Assessment Report

D&D RISS Facility Characterization
Historical Site Assessment Report
June, 2002 Rev. 0

Facility ID: (Area 3 Group 5) Trailers T115A, T115B, and T115C.
Anticipated Facility Type (1, 2, or 3): Trailers T115A, T115B, and T115C are anticipated Type 1 facilities.

This facility-specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Physical Description

Trailer T115A

Trailer T115A is a 6820 sq. ft. Office Trailer acquired in 1989. T115A is currently empty, but was used as a general office trailer. This trailer has a metal roof, metal siding, and metal skirting. There are wood stairs leading to the entryways. Interior walls are wallboard. This trailer has several hard walled offices with the main work area divided into cubical work areas.

Trailer T115A has the following utilities: electric, plant water, plant sanitary, fire protection provided by an overhead sprinkler system and wall mounted fire extinguishers.

Trailer T115B

Trailer T115B is a 756 sq. ft. Fire Dispatch Quarters and was acquired in 1990. This trailer has a metal roof, metal siding, and metal skirting with wood stairs leading to the entryways. Interior walls are wallboard. This trailer is configured with a kitchen, laundry room, living room and a sleeping area.

Trailer T115B has the following utilities: electric, plant water, plant sanitary, fire protection provided by wall mounted fire extinguishers.

Trailer T115C

Trailer T115C is a 3000 sq. ft. Office Trailer acquired in 1991. T115C is currently empty, but was used as a general office trailer. The trailer has a metal roof, metal siding, and metal skirting. There are wood stairs leading to the entryways. Interior walls are wallboard.

Building T115C has the following utilities: electric and fire protection provided by an overhead sprinkler system and wall mounted fire extinguishers.

16

Historical Operations

Trailer T115A

Trailer T115A has historically been used as a general office trailer. When T115A was first installed in 1989 it housed DOE personnel and telecommunication support personnel. When T115C was installed in 1991. A short enclosed walkway was installed to connect T115B and T115C. In the mid 1990s both T115A and T115C were used by the administrative support part of the MDA Measurements Group. Neither T115A nor T115C were used to store or handle radiological material or sealed sources. No chemical operations were housed in either T115A or T115C.

Trailer T115B

Trailer T115B was originally installed in 1990 as the sleeping quarters for the DOE Duty Officer. In the mid 1990s the trailer was transferred to the Fire Department and used as the sleeping quarters for the Fire Dispatcher. Trailer T115B has never housed any radiological or chemical operations.

Trailer T115C

Trailer T115C has historically been used as a general office trailer. When T115C was installed in 1991. A short enclosed walkway was installed to connect T115B and T115C. Originally T115C housed DOE personnel and telecommunication support personnel. In the mid 1990s both T115A and T115C were used by the administrative support part of the MDA Measurements Group. Neither T115A nor T115C were used to store or handle radiological material or sealed sources. No chemical operations were housed in either T115A or T115C.

Current Operational Status

Trailers T115A and T115C are vacant. Trailer T115B is currently operational as the fire dispatch sleeping quarters.

Contaminants of Concern

Asbestos

Describe any potential, likely, or known sources of Asbestos:

None of the buildings addressed in this HSA have an asbestos posting. None of the facilities in this HSA have had a comprehensive asbestos survey.

Beryllium (Be)

Describe any potential, likely, or known Be production or storage locations:

None of the building addressed in this HSA are on the List of known Be Areas.

Summarize any recent Be sampling results:

No resent Be samples collected on any of these facilities.

17

Lead

Describe any potential, likely, or known sources of Lead (e.g., paint, shielding, etc.):

Lead in paint should not be a concern for the facilities in this HSA, given the resent age of construction. No processes containing lead were conducted in these trailers.

RCRA/CERCLA Constituents

Describe any potential, likely, or known sources of RCRA/CERCLA constituents (e.g., chemical storage, waste storage, and processes):

Trailer T115A and T115C are general office trailers. Trailer T115B is the sleeping quarters for the fire dispatcher. None of these facilities have a history of handling or storing RCRA/CERCLA constituents.

Describe any potential, likely, or known spill locations (and sources, if any):

None

Describe methods in which spills were mitigated, if any:

None

PCBs

Describe any potential, likely, or known sources of PCBs (e.g., light ballasts, paints, equipment, etc.):

PCBs where not known to have been handled in any of the facilities addressed in this HSA. Due to the recent age of construction, PCBs in paint are not expected.

Describe any potential, likely, or known spill locations (and sources, if any):

No PCB spills occurred in any of the facilities addressed in this HSA.

Describe methods in which spills were mitigated, if any:

No PCB spills occurred in any of the facilities addressed in this HSA.

18

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations:

Trailer T115A and T115C are general office trailers. Trailer T115B is the sleeping quarters for the fire dispatcher. None of these facilities are radiologically posted. None of these facilities have stored or handled any radiological material.

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.):

None

Describe methods in which spills were mitigated, f any:

None

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.):

There were no radiological material stored or handled in any of the facilities addressed in this HSA.

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.):

See section below for information on IHSSs PACs, and UBCs.

Environmental Restoration Concerns

Describe any ER concerns that could affect facility characterization (e.g., IHSSs, PACs, UBCs):

Trailers T115A, T115B, T115C are not associated with or located near any IHSSs, PACs, and UBCs;

Additional Information

Describe any additional information that may be useful during facility characterization (e.g., contaminant migration routes, waste handling operations, physical hazards, Historical Release Reports, WSRIC data, etc.):

None

References

Provide all sources of information utilized to gather data for facility history (e.g., documents, files, interviews):

Sources reviewed to complete this HSA were the RFETS Facility List, the Historical Release Report, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases. None of the buildings in this HSA have WSRICs. In addition, a facility walkdown and interviews were performed.

Waste Volume Estimates and Material Types							
Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM (cu ft)	Other Waste (cu ft)
Trailer T115A	0	1100	1600	2100	2300	TBD	N/A
Trailer T115B	0	275	250	350	450	TBD	N/A
Trailer T115C	0	600	800	1100	1400	TBD	N/A

Further Actions

Recommend any further actions, if any (e.g., characterization, decontamination, special handling, etc.):

Begin the RLC/PDS process.

Note:

This HSA was performed prior to SME walkdowns, and chemical and radiological characterization package preparations. SMEs should evaluate and/or verify all information during the RLC/PDS process. SMEs may need to review additional documentation and perform additional interviews. Information contained in this HSA only represents a "snapshot" in time. Subsequent data may be obtained during SME walkdowns and chemical and radiological characterization package preparations, which may conflict with this report. However, this report will not be amended, and the newer data will take precedence over the data in this report. Newer Data will appear in the RLCR/PDSR.

Prepared By: Doug Bryant (Name) (Signature) June 2002 (Date)

ATTACHMENT C

Radiological Data Summaries and Survey Maps

SURVEY UNIT 115A-A-001
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T115A Interior

22

Total Surface Activity Measurements

	45 Number Required	45 Number Obtained	
MIN	-8.0		dpm/100 cm^2
MAX	50.3		dpm/100 cm^2
MEAN	11.9		dpm/100 cm^2
STD DEV	12.6		dpm/100 cm^2
TRANSURANIC $DCGL_W$	100		dpm/100 cm^2

Removable Activity Measurements

	45 Number Required	45 Number Obtained	
MIN	-1.5		dpm/100 cm^2
MAX	4.2		dpm/100 cm^2
MEAN	0.3		dpm/100 cm^2
STD DEV	1.3		dpm/100 cm^2
TRANSURANIC $DCGL_W$	20		dpm/100 cm^2

Survey Unit
115A-A-001
PDS Data Summary

Manufacturer:	NE Tech	NE Tech	NE Tech	NE Tech	NE Tech	NE Tech
Model:	DP-6	DP-6	DP-6	DP-6	DP-6	DP-6
Instrument ID#:	1	2	3	4	5	6
Serial #:	2344	3115	1379	3125	3104	3102
Cal Due Date:	7/16/03	6/4/03	6/3/03	4/21/03	5/11/03	7/27/03
Analysis Date:	2/4/03	2/4/03	2/4/03	2/4/03	2/4/03	2/4/03
Alpha Eff. (c/d):	0.224	0.228	0.214	0.211	0.222	0.227
Alpha Bkgd (cpm)	4.0	1.3	0.0	0.7	2.7	4.7
Sample Time (min)	1.5	1.5	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#:	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	1	6.0	26.8	7.0	31.3	6.9
2	2	16.0	70.2	5.3	23.2	50.3
3	1	6.7	29.9	6.7	29.9	10.0
4	5	5.3	23.9	2.7	12.2	4.0
5	1	10.7	47.8	6.0	26.8	27.9
6	2	4.7	20.6	4.0	17.5	0.7
7	1	10.0	44.6	7.0	31.3	24.8
8	1	8.0	35.7	3.3	14.7	15.8
9	2	6.0	26.3	5.3	23.2	6.4
10	1	8.0	35.7	7.0	31.3	15.8
11	2	8.7	38.2	6.7	29.4	18.3
12	3	6.0	28.0	4.0	18.7	8.2
13	2	5.3	23.2	5.3	23.2	3.4
14	1	5.3	23.7	6.0	26.8	3.8
15	1	12.0	53.6	7.3	32.6	33.7
16	1	7.3	32.6	3.3	14.7	12.7
17	3	6.0	28.0	0.0	0.0	8.2
18	2	10.0	43.9	8.0	35.1	24.0
19	6	2.7	11.9	2.7	11.9	-8.0
20	1	6.7	29.9	6.3	28.1	10.0
21	3	3.3	15.4	2.0	9.3	-4.5
22	2	4.7	20.6	6.0	26.3	0.7
23	6	7.3	32.2	3.3	14.5	12.3
24	1	13.3	59.4	3.3	14.7	39.5
25	3	3.3	15.4	4.0	18.7	-4.5
26	2	9.3	40.8	3.0	13.2	20.9
27	3	3.3	15.4	2.7	12.6	-4.5
28	1	4.7	21.0	7.0	31.3	1.1
29	6	7.3	32.2	2.7	11.9	12.3
30	3	6.0	28.0	2.7	12.6	8.2
31	2	9.3	40.8	6.7	29.4	20.9
32	1	12.7	56.7	7.3	32.6	36.8
33	3	8.0	37.4	1.3	6.1	17.5
34	1	7.3	32.6	3.3	14.7	12.7
35	6	7.3	32.2	1.3	5.7	12.3
36	1	9.3	41.5	7.3	32.6	21.6
37	3	7.3	34.1	3.3	15.4	14.2
38	2	5.3	23.2	5.3	23.2	3.4

24

39	6	8.7	38.3	6.2	27.3	18.5
40	3	4.0	18.7	3.3	15.4	-1.2
41	2	5.3	23.2	2.0	8.8	3.4
42	6	5.3	23.3	4.7	20.7	3.5
43	6	8.0	35.2	2.7	11.9	15.4
44	2	6.0	26.3	4.0	17.5	6.4
45	2	2.7	11.8	1.3	5.7	-8.0

1 - Average LAB used to subtract from Gross Sample Activity

19.9	Sample LAB Average
MIN	-8.0
MAX	50.3
MEAN	11.9
SD	12.6
Transuranic $DCGL_W$	100

QC Measurements

2QC	3	3.3	15.4	2.0	9.3	-4.9
15QC	3	6.0	28.0	6.0	28.0	7.7
23QC	3	4.7	22.0	2.7	12.6	1.6

1 - Average QC LAB used to subtract from Gross Sample Activity

20.3	QC LAB Average
MIN	1.6
MAX	7.7
MEAN	4.7
Transuranic $DCGL_W$	100

25

SURVEY UNIT 115A-A-001
RSC - DATA SUMMARY

Manufacturer:	Eberline	Eberline	Eberline	Eberline
Model:	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#:	7	8	9	10
Serial #:	767	1164	833	952
Cal Due Date:	5/13/03	6/17/03	2/28/03	7/9/03
Analysis Date:	2/4/03	2/4/03	2/4/03	2/4/03
Alpha Eff. (c/d):	0.33	0.33	0.33	0.33
Alpha Bkgd (cpm)	0.1	0.1	0.5	0.0
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9.0	9.0	9.0	9.0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	7	2	2.7
2	8	0	0.0
3	9	0	-1.5
4	10	0	0.0
5	7	1	1.2
6	8	2	3.0
7	9	0	-1.5
8	10	0	0.0
9	7	1	1.2
10	8	0	0.0
11	9	2	1.5
12	10	0	0.0
13	7	3	4.2
14	8	0	0.0
15	9	1	0.0
16	10	0	0.0
17	7	1	1.2
18	8	0	0.0
19	9	1	0.0
20	10	0	0.0
21	7	0	-0.3
22	8	0	0.0
23	9	0	-1.5
24	10	1	1.5
25	7	2	2.7
26	8	0	0.0
27	9	0	-1.5
28	10	0	0.0
29	7	2	2.7
30	8	0	0.0

SURVEY UNIT 115A-A-001
RSC - DATA SUMMARY

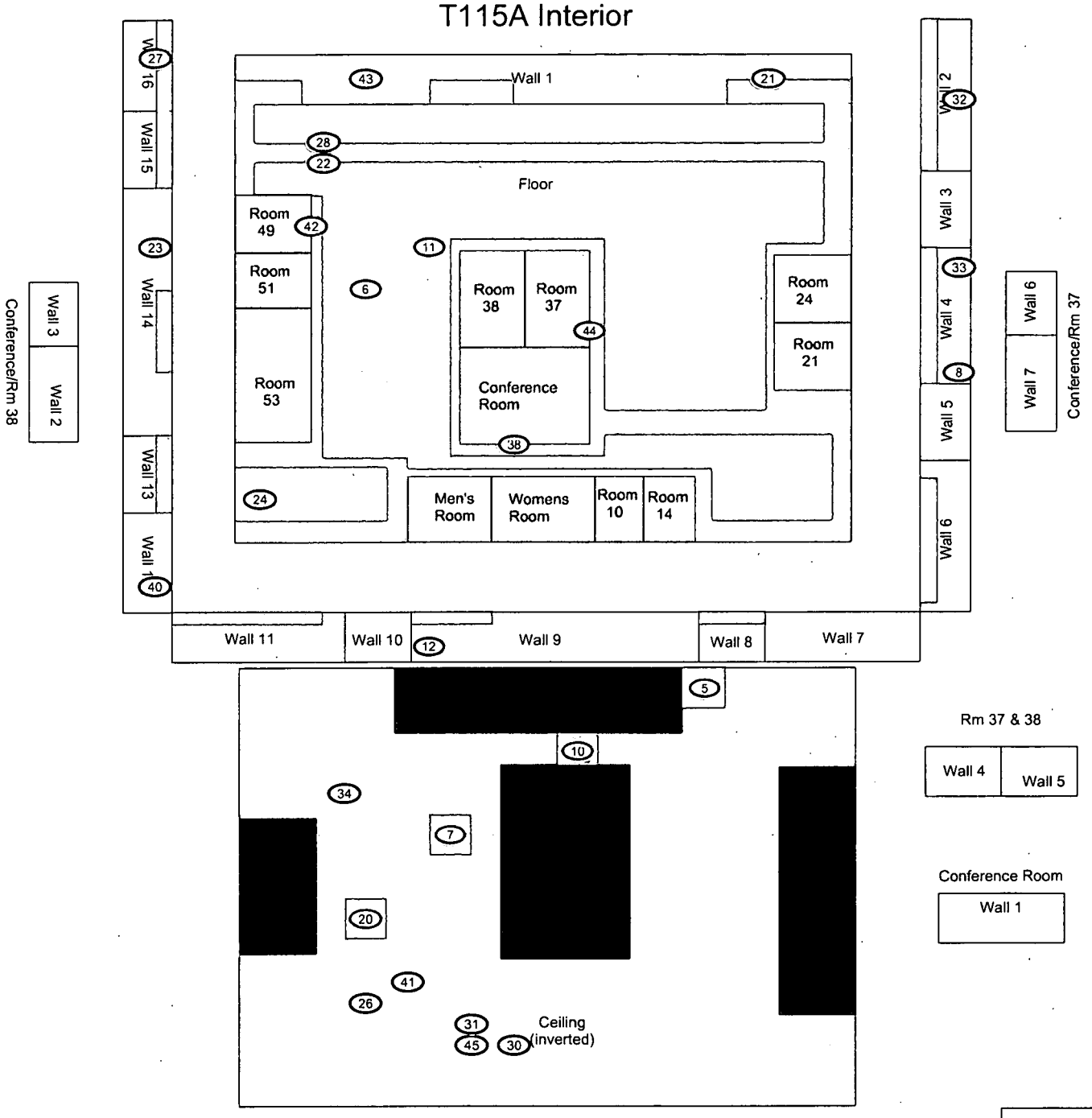
Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
31	9	0	-1.5
32	10	0	0.0
33	7	0	-0.3
34	8	0	0.0
35	9	1	0.0
36	10	0	0.0
37	7	0	-0.3
38	8	1	1.5
39	9	0	-1.5
40	10	0	0.0
41	7	0	-0.3
42	8	0	0.0
43	9	1	0.0
44	10	0	0.0
45	7	1	1.2
		MIN	-1.5
		MAX	4.2
		MEAN	0.3
		SD	1.3
		Transuranic $DCGL_W$	**20**

27

PRE-DEMOLITION SURVEY FOR AREA 3/GROUP 5

Survey Area: 3 **Survey Unit: 115A-A-001** **Classification: 3**
Building: T15A
Survey Unit Description: Building Interior
Total Area: 1822 sq. m. **Total Floor Area: 579 sq. m.**

T115A Interior



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
2, 3, & 5

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 **Prepared for:** KAISER-HILL COMPANY

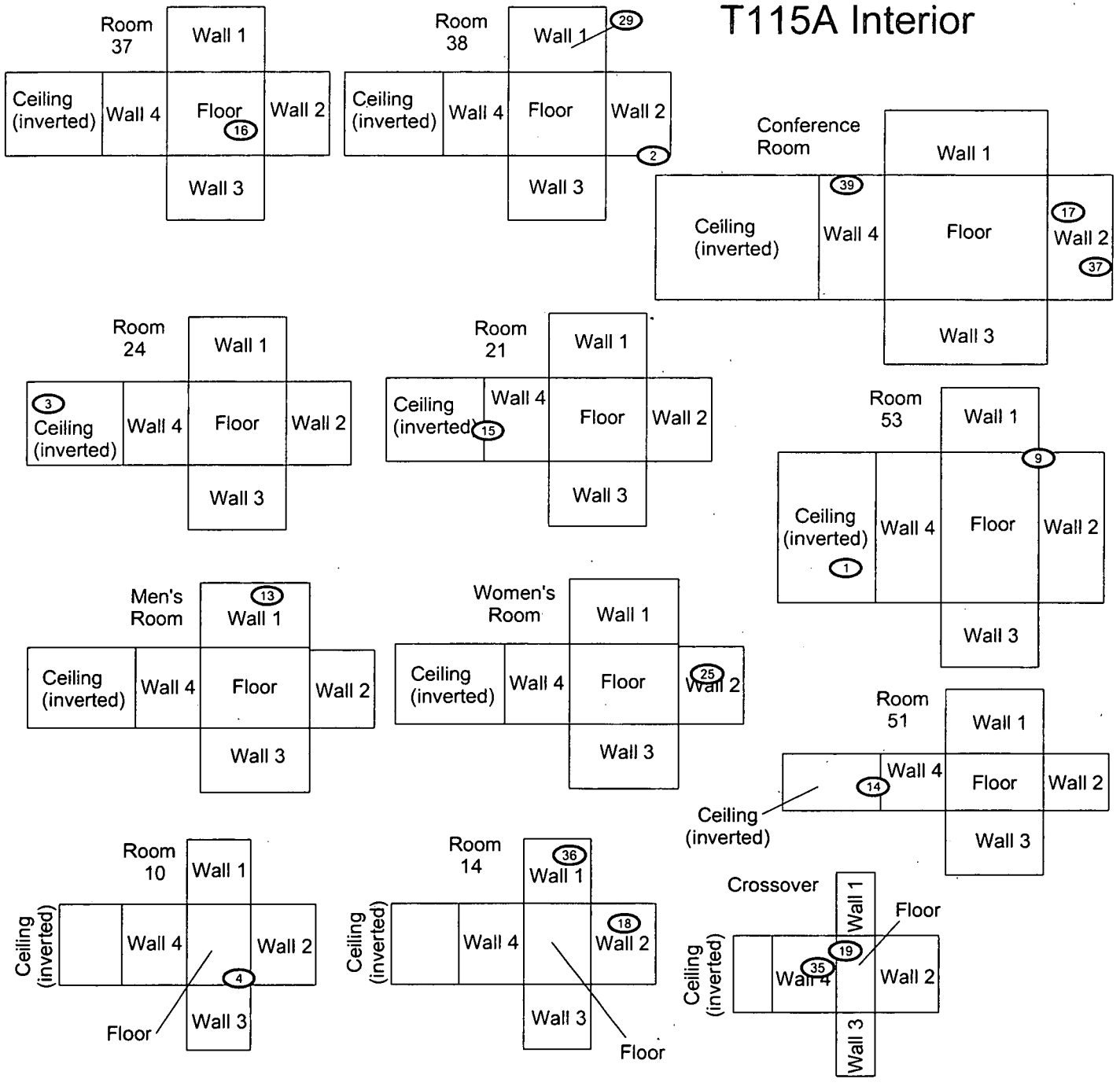
MAP ID: 02-0589/T115A-IN1-SC **Feb. 17, 2003**

28

PRE-DEMOLITION SURVEY FOR AREA 3/GROUP 5

Survey Area: 3 **Survey Unit: 115A-A-001** **Classification: 3**
Building: T115A
Survey Unit Description: Building Interior
Total Area: 1822 sq. m. **Total Floor Area: 579 sq. m.**

T115A Interior



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
2, 3, & 5

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

DynCorp
THE ART OF TECHNOLOGY

KAISER-HILL COMPANY

MAP ID: 02-0589/T115A-IN2 February 17, 2003

SURVEY UNIT 115B-A-002
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T115B Interior

30

Total Surface Activity Measurements

	35 Number Required	35 Number Obtained	
MIN	-6.7		dpm/100 cm^2
MAX	19.1		dpm/100 cm^2
MEAN	4.5		dpm/100 cm^2
STD DEV	7.2		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	35 Number Required	35 Number Obtained	
MIN	-1.5		dpm/100 cm^2
MAX	1.5		dpm/100 cm^2
MEAN	-0.1		dpm/100 cm^2
STD DEV	1.0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

SURVEY UNIT 115B-A-002
TSA - DATA SUMMARY

Manufacturer:	NE Tech	NE Tech	NE Tech
Model:	DP-6	DP-6	DP-6
Instrument ID#:	1	2	7
Serial #:	1261	1241	1261
Cal Due Date:	6/19/03	5/11/03	6/19/03
Analysis Date:	2/6/03	2/6/03	2/25/03
Alpha Eff. (c/d):	0.207	0.217	0.207
Alpha Bkgd (cpm)	0.7	0.0	2.7
Sample Time (min)	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0

Sample Location Number	Instrument ID#:	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	1	0.7	3.4	6.0	29.0	-6.5
2	1	1.3	6.3	2.0	9.7	-3.6
3	1	2.7	13.0	2.7	13.0	3.1
4	1	2.7	13.0	3.3	15.9	3.1
5	2	0.7	3.2	0.7	3.2	-6.7
6	2	2.7	12.4	0.7	3.2	2.5
7	1	4.0	19.3	0.7	3.4	9.4
8	1	2.7	13.0	1.3	6.3	3.1
9	2	1.3	6.0	1.3	6.0	-3.9
10	2	5.3	24.4	1.3	6.0	14.5
11	2	2.0	9.2	2.0	9.2	-0.7
12	2	4.0	18.4	2.3	10.6	8.5
13	2	2.0	9.2	2.7	12.4	-0.7
14	2	6.0	27.6	2.0	9.2	17.7
15	1	4.7	22.7	4.0	19.3	12.8
16	2	2.0	9.2	2.0	9.2	-0.7
17	2	3.3	15.2	1.3	6.0	5.3
18	2	3.3	15.2	1.3	6.0	5.3
19	2	2.0	9.2	2.0	9.2	-0.7
20	1	3.3	15.9	2.0	9.7	6.0
21	1	2.7	13.0	2.0	9.7	3.1
22	1	3.3	15.9	2.0	9.7	6.0
23	1	4.7	22.7	3.3	15.9	12:8
24	2	3.3	15.2	2.2	10.1	5.3
25	1	0.7	3.4	0.0	0.0	-6.5
26	1	6.0	29.0	1.3	6.3	19.1
27	2	1.3	6.0	2.0	9.2	-3.9
28	1	2.0	9.7	5.3	25.6	-0.3
29	1	2.7	13.0	2.0	9.7	3.1
30	2	2.0	9.2	2.2	10.1	-0.7
31	1	4.7	22.7	0.7	3.4	12.8
32	2	4.7	21.7	2.0	9.2	11.7

32

SURVEY UNIT 115B-A-002
TSA - DATA SUMMARY

Sample Location Number	Instrument ID#:	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
33	1	6.0	29.0	4.0	19.3	19.1
34	2	2.4	11.1	1.3	6.0	1.1
35	1	3.3	15.9	1.3	6.3	6.0
					9.9	Sample LAB Average
					MIN	-6.7
					MAX	19.1
					MEAN	4.5
					SD	7.2
					Transuranic $DCGL_W$	100

1 - Average LAB used to subtract from Gross Sample Activity

QC Measurements

14QC	1	4.0	19.3	0.7	3.4	9.7
7 QC	7	4.0	19.3	2.0	9.7	9.7
					9.7	QC LAB Average
					MIN	9.7
					MAX	9.7
					MEAN	9.7
					Transuranic $DCGL_W$	100

1 - Average QC LAB used to subtract from Gross Sample Activity

33

SURVEY UNIT 115B-A-002
RSC - DATA SUMMARY

Manufacturer:	Eberline	Eberline	Eberline	Eberline
Model:	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#:	3	4	5	6
Serial #:	767	1164	833	952
Cal Due Date:	5/13/03	6/17/03	2/28/03	7/9/03
Analysis Date:	2/6/03	2/6/03	2/6/03	2/6/03
Alpha Eff. (c/d):	0.33	0.33	0.33	0.33
Alpha Bkgd (cpm)	0.1	0.1	0.5	0.0
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9.0	9.0	9.0	9.0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	3	0	-0.3
2	4	0	0.0
3	5	0	-1.5
4	6	1	1.5
5	3	1	1.2
6	4	1	1.5
7	5	0	-1.5
8	6	0	0.0
9	3	1	1.2
10	4	0	0.0
11	5	0	-1.5
12	6	1	1.5
13	3	0	-0.3
14	4	0	0.0
15	5	2	1.5
16	6	0	0.0
17	3	0	-0.3
18	4	0	0.0
19	5	0	-1.5
20	6	0	0.0
21	3	0	-0.3
22	4	0	0.0
23	5	0	-1.5
24	6	0	0.0
25	3	1	1.2
26	4	0	0.0
27	5	0	-1.5
28	6	0	0.0
29	3	1	1.2
30	4	0	0.0
31	5	0	-1.5
32	6	0	0.0

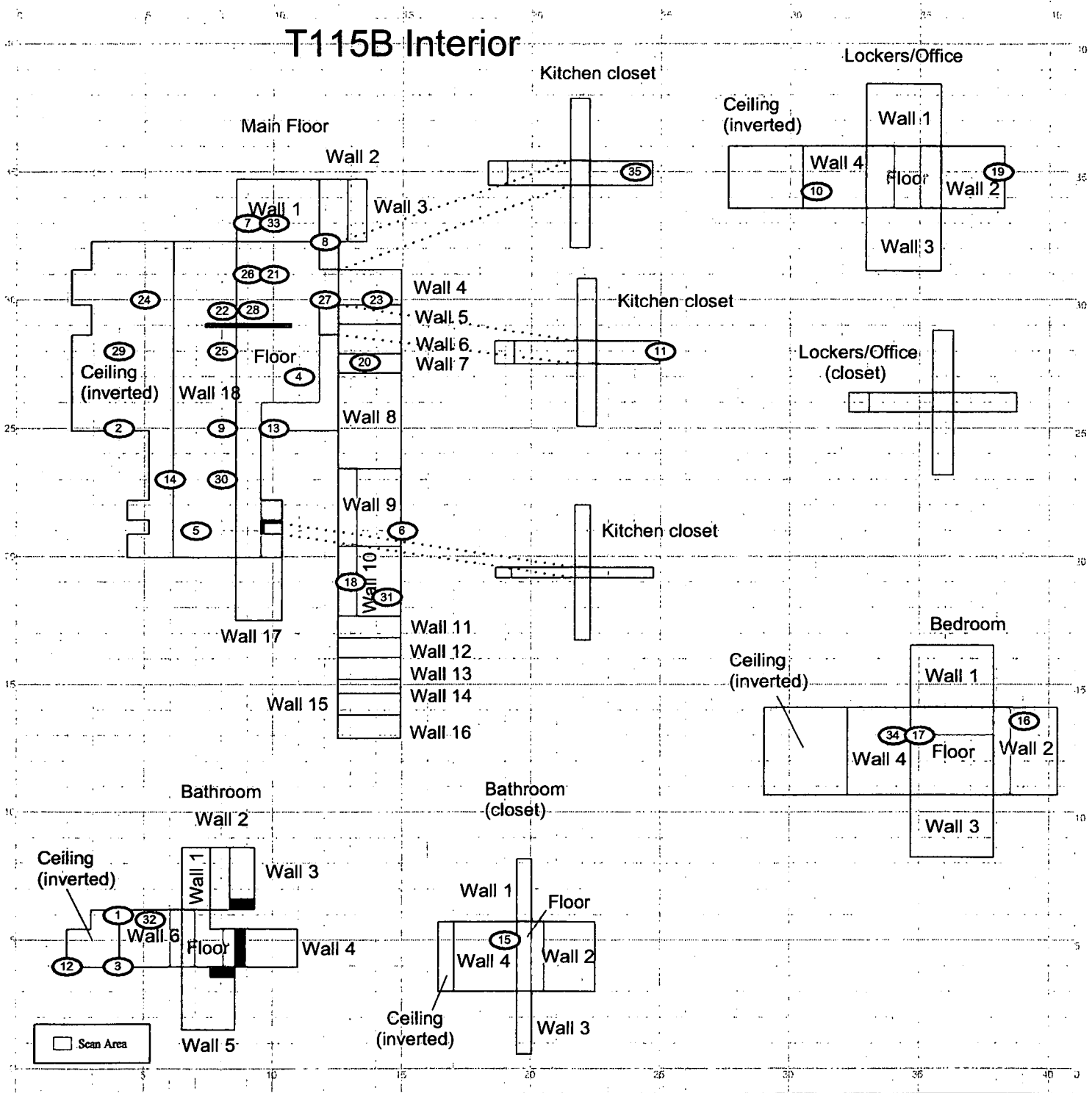
SURVEY UNIT 115B-A-002
RSC - DATA SUMMARY

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
33	3	0	-0.3
34	4	0	-0.3
35	5	0	-1.5
		MIN	-1.5
		MAX	1.5
		MEAN	-0.1
		SD	1.0
		Transuranic $DCGL_W$	**20**

35

PRE-DEMOLITION SURVEY FOR AREA 3/GROUP 5

Survey Area: 3 **Survey Unit: 115B-A-002** **Classification: 3**
Building: T115B
Survey Unit Description: Interior of Building
Total Area: 337 sq. m. **Total Floor Area: 61 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1 & 2

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

DynCorp
THE ART OF TECHNOLOGY

KAISER-HILL

MAP ID: 02-0589/T115B-IN-SC February 19, 2003

SURVEY UNIT 115C-A-003
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T115C Interior

37

Survey Unit
115C-A-003
PDS Data Summary

Total Surface Activity Measurements

	35 Number Required	35 Number Obtained	
MIN	-13.5		dpm/100 cm^2
MAX	38.0		dpm/100 cm^2
MEAN	3.3		dpm/100 cm^2
STD DEV	14.3		dpm/100 cm^2
TRANSURANIC $DCGL_W$	100		dpm/100 cm^2

Removable Activity Measurements

	35 Number Required	35 Number Obtained	
MIN	-1.8		dpm/100 cm^2
MAX	3.0		dpm/100 cm^2
MEAN	-0.5		dpm/100 cm^2
STD DEV	1.1		dpm/100 cm^2
TRANSURANIC $DCGL_W$	20		dpm/100 cm^2

38

Survey Unit
115C-A-003
PDS Data Summary

Manufacturer:	NE Tech	NE Tech	NE Tech	NE Tech
Model:	DP-6	DP-6	DP-6	DP-6
Instrument ID#:	1	2	3	4
Serial #:	3104	3125	3115	3250
Cal Due Date:	5/11/03	4/21/03	6/4/03	7/13/03
Analysis Date:	2/6/03	2/6/03	2/6/03	2/6/03
Alpha Eff. (c/d):	0.222	0.211	0.228	0.219
Alpha Bkgd (cpm)	4.7	0.0	4.7	4.7
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#:	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)1
1	3	3.3	14.5	5.3	23.2	-2.3
2	1	5.3	23.9	2.7	12.2	7.1
3	2	4.7	22.3	3.3	15.6	5.5
4	2	1.3	6.2	0.7	3.3	-10.7
5	1	1.1	5.0	4.0	18.0	-11.9
6	2	2.7	12.8	3.3	15.6	-4.0
7	4	8.7	39.7	6.0	27.4	22.9
8	2	3.3	15.6	3.3	15.6	-1.2
9	2	3.3	15.6	2.7	12.8	-1.2
10	4	8.0	36.5	4.7	21.5	19.7
11	3	9.3	40.8	4.7	20.6	24.0
12	2	3.3	15.6	3.3	15.6	-1.2
13	2	1.3	6.2	2.0	9.5	-10.7
14	2	1.3	6.2	2.7	12.8	-10.7
15	2	2.0	9.5	2.7	12.8	-7.3
16	3	8.0	35.1	4.7	20.6	18.3
17	1	1.3	5.9	2.7	12.2	-11.0
18	4	12.0	54.8	8.0	36.5	38.0
19	4	4.0	18.3	3.3	15.1	1.4
20	2	3.3	15.6	2.7	12.8	-1.2
21	1	3.3	14.9	4.0	18.0	-2.0
22	4	7.3	33.3	4.0	18.3	16.5
23	1	2.0	9.0	2.7	12.2	-7.8
24	2	0.7	3.3	2.7	12.8	-13.5
25	3	4.0	17.5	2.0	8.8	0.7
26	4	10.0	45.7	4.0	18.3	28.8
27	2	2.0	9.5	1.3	6.2	-7.3
28	3	3.3	14.5	1.3	5.7	-2.3
29	4	12.0	54.8	8.0	36.5	38.0
30	1	3.3	14.9	1.3	5.9	-2.0
31	4	4.0	18.3	7.3	33.3	1.4
32	2	3.3	15.6	5.3	25.1	-1.2
33	3	7.3	32.0	7.3	32.0	15.2
34	2	0.7	3.3	1.3	6.2	-13.5
35	2	4.0	19.0	3.3	15.6	2.1
					16.8	Sample LAB Average
					MIN	-13.5
					MAX	38.0

1 - Average LAB used to subtract from Gross Sample Activity

39

Survey Unit
115C-A-003
PDS Data Summary

Sample Location Number	Instrument ID#:	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)1
					MEAN	3.3
					SD	14.3
					Transuranic $DCGL_W$	100

QC Measurements

22QC	3	12.0	52.6	4.7	20.6	39.2
2QC	2	4.7	22.3	1.3	6.2	8.9
					13.4	QC LAB Average
					MIN	8.9
					MAX	39.2
					MEAN	24.1
					Transuranic $DCGL_W$	100

1 - Average QC LAB used to subtract from Gross Sample Activity

40

SURVEY UNIT 115C-A-003
RSC - DATA SUMMARY

Manufacturer:	Eberline	Eberline	Eberline	Eberline
Model:	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#:	5	6	7	8
Serial #:	767	1164	833	952
Cal Due Date:	5/13/03	6/17/03	2/28/03	7/9/03
Analysis Date:	2/6/03	2/6/03	2/6/03	2/6/03
Alpha Eff. (c/d):	0.33	0.33	0.33	0.33
Alpha Bkgd (cpm)	0.6	0.0	0.3	0.4
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9.0	9.0	9.0	9.0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	5	1	-0.3
2	6	1	1.5
3	7	0	-0.9
4	8	0	-1.2
5	5	0	-1.8
6	6	2	3.0
7	7	0	-0.9
8	8	1	0.3
9	5	0	-1.8
10	6	0	0.0
11	7	0	-0.9
12	8	0	-1.2
13	5	0	-1.8
14	6	0	0.0
15	7	2	2.1
16	8	1	0.3
17	5	0	-1.8
18	6	0	0.0
19	7	0	-0.9
20	8	0	-1.2
21	5	0	-1.8
22	6	0	0.0
23	7	0	-0.9
24	8	0	-1.2
25	5	0	-1.8
26	6	0	0.0
27	7	0	-0.9
28	8	0	-1.2

41

SURVEY UNIT 115C-A-003
RSC - DATA SUMMARY

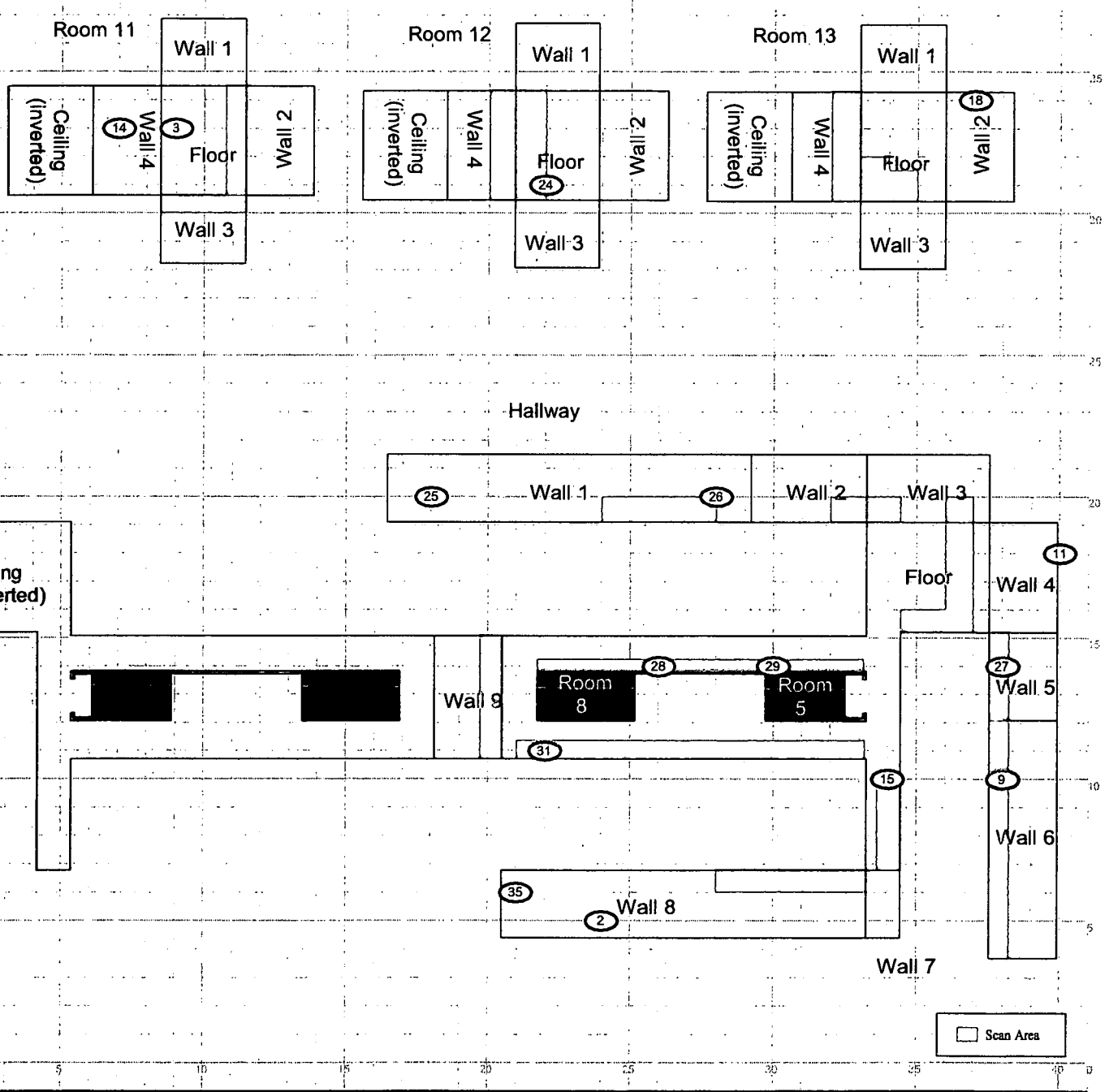
Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
29	5	0	-1.8
30	6	0	0.0
31	7	0	-0.9
32	8	1	0.3
33	5	1	-0.3
34	6	0	0.0
35	7	1	0.6
		MIN	-1.8
		MAX	3.0
		MEAN	-0.5
		SD	1.1
		Transuranic $DCGL_W$	**20**

42

PRE-DEMOLITION SURVEY FOR AREA 3/GROUP 5

Survey Area: 3 **Survey Unit: 115C-A-003** **Classification: 3**
Building: T115C
Survey Unit Description: Interior of Building
Total Area: 1054 sq. m. **Total Floor Area: 230 sq. m.**

T115C Interior



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s): & RCT ID #(s):
1 & 4

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

DynCorp
THE ART OF TECHNOLOGY

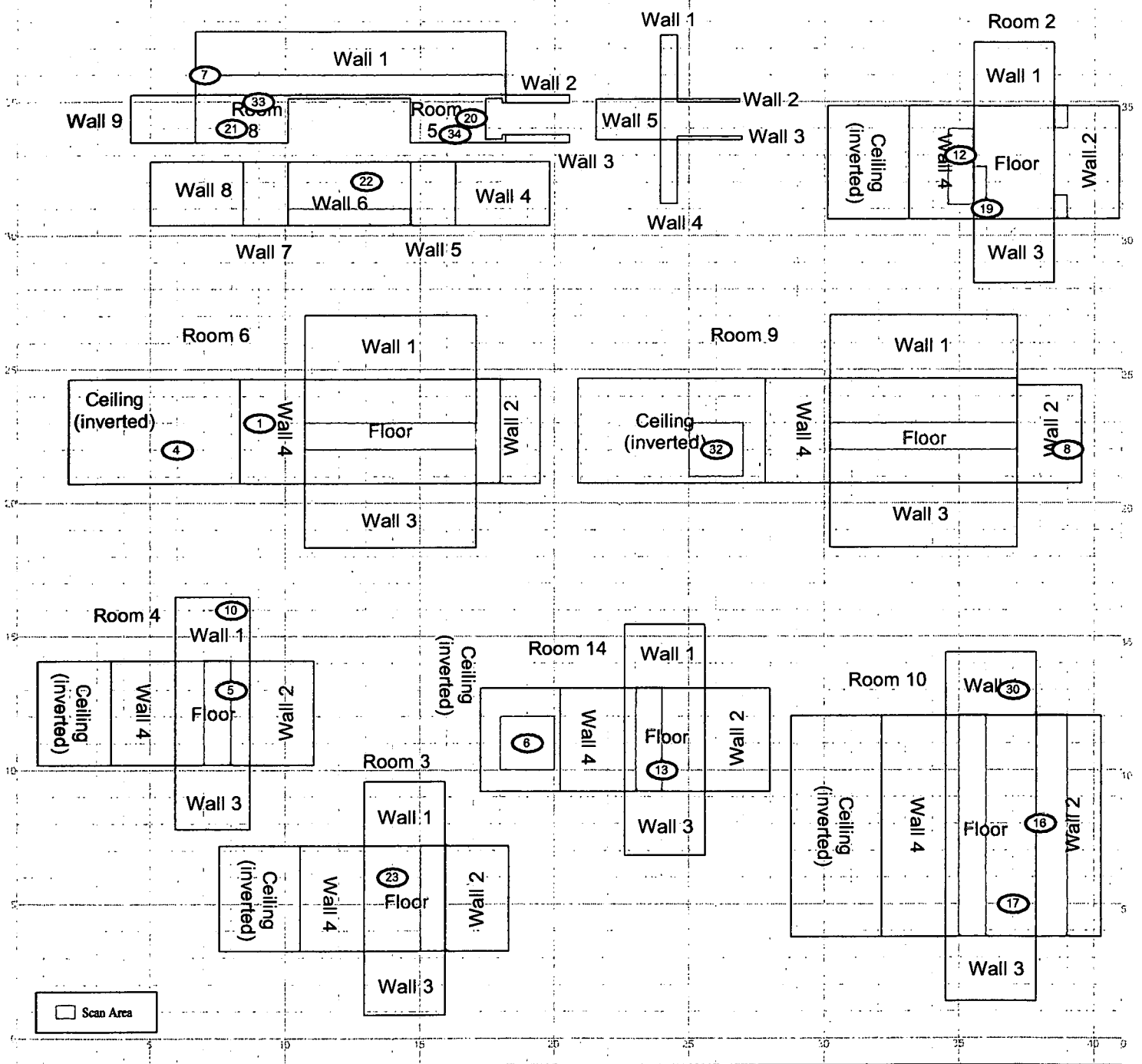
KAISER HILL

MAP ID: 02-0589/T115C-IN1-SC February 19, 2003

PRE-DEMOLITION SURVEY FOR AREA 3/GROUP 5

Survey Area: 3 **Survey Unit: 115C-A-003** **Classification: 3**
Building: T115C
Survey Unit Description: Interior of Building
Total Area: 1054 sq. m. **Total Floor Area: 230 sq. m.**

T115C Interior



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1 & 4

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

DynCorp
THE ART OF TECHNOLOGY

KAISER-HILL

MAP ID: 02-0589/T115C-IN2-SC February 19, 2003

ATTACHMENT D

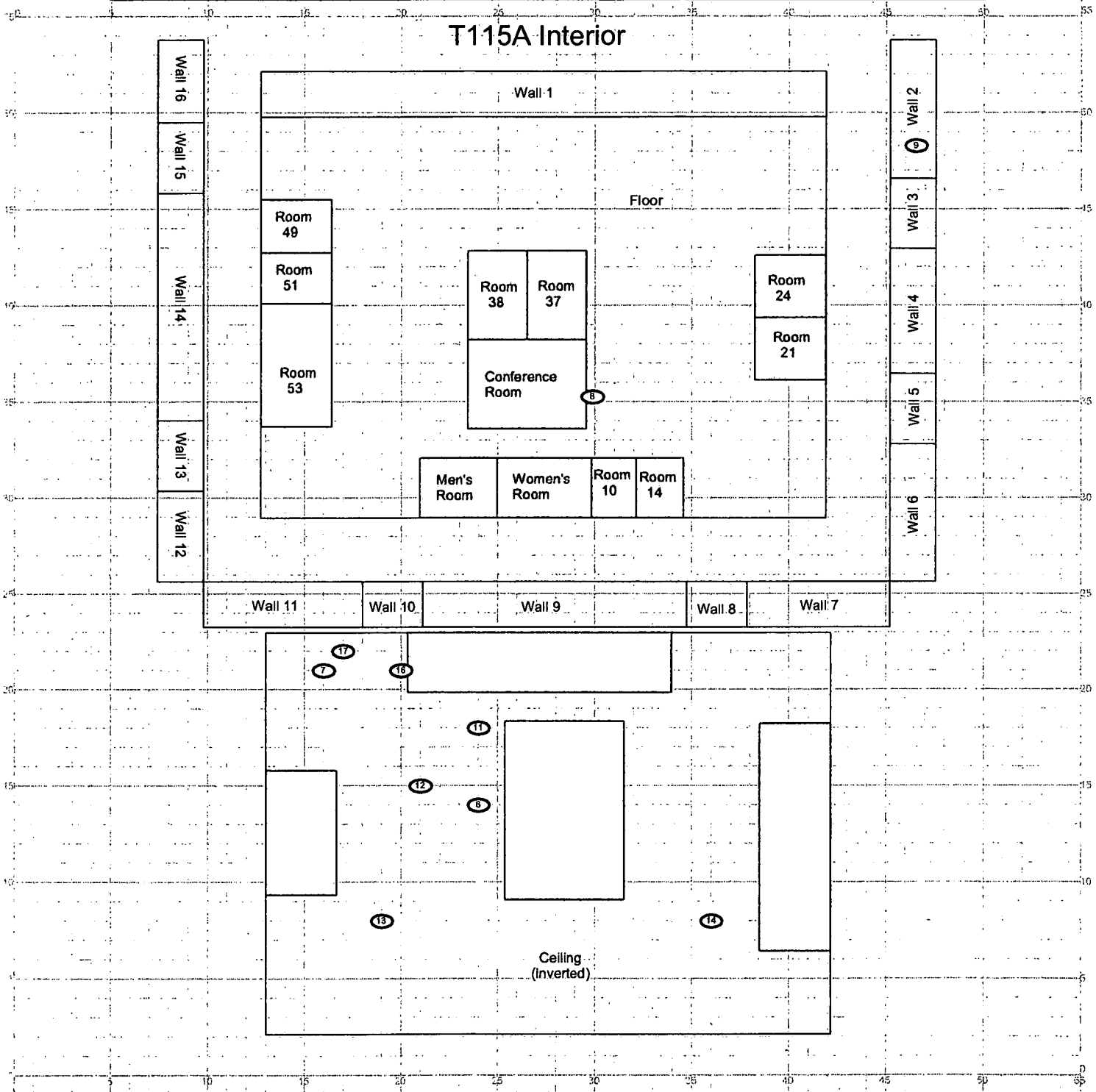
Chemical Data Summaries and Sample Maps

Asbestos Data Summary

Sample Number	Map Point Location	Room	Material Sampled & Location	Analytical Results
Building T115A – RIN03Z1004				
T115A-02182003-315-201	1	Men's	White, beige, and tan linoleum	None Detected
T115A-02182003-315-202	2	Men's	White, beige, and tan linoleum	None Detected
T115A-02182003-315-203	3	Women's	12" white and gray vinyl floor tile with adhesive	None Detected
T115A-02182003-315-204	4	Women's	12" white and gray vinyl floor tile with adhesive	None Detected
T115A-02182003-315-205	5	Women's	Dark brown base cove with adhesive	None Detected
T115A-02182003-315-206	6	Interior	2' x 4' white acoustical drop ceiling tile with medium "worm" pattern	None Detected
T115A-02182003-315-207	7	Interior	2' x 4' white acoustical drop ceiling tile with medium "worm" pattern	None Detected
T115A-02182003-315-208	8	Interior	White painted drywall	None Detected
T115A-02182003-315-209	9	Interior	White painted drywall	None Detected
T115A-02182003-315-210	10	Exterior	Caulking above east entrance door	None Detected
T115A-02182003-315-211	11	Interior	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115A-02182003-315-212	12	Interior	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115A-02182003-315-213	13	Interior	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115A-02182003-315-214	14	Interior	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115A-02182003-315-215	15	Interior	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115A-02182003-315-216	16	Interior	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115A-02182003-315-217	17	Interior	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
Building T115B – RIN03Z1004				
T115B-02182003-315-201	1	Kitchen Closet	6" white square with black diamond linoleum	None Detected
T115B-02182003-315-202	2	Linen Closet	6" white square with black diamond linoleum	None Detected
T115B-02182003-315-203	3	Entry to Bath	Beige base cove and adhesive	None Detected
T115B-02182003-315-204	4	Kitchen Closet	Drywall with sprayed-on orange peel texture	None Detected
T115B-02182003-315-205	5	Locker Room Closet	Drywall with sprayed-on orange peel texture	None Detected
T115B-02182003-315-206	6	Living Room	Drywall with sprayed-on orange peel texture, west wall	None Detected
T115B-02182003-315-207	7	Hallway	White joint compound with sprayed-on orange peel texture	None Detected
T115B-02182003-315-208	8	Living Room	2' x 2' white acoustical drop ceiling tile with 2" squares	None Detected
T115B-02182003-315-209	9	Living Room	Joint compound and drywall at deck	None Detected
T115B-02182003-315-210	10	Living Room	2' x 2' white acoustical drop ceiling tile with 2" squares	None Detected
Building T115C – RIN03Z1004				
T115C-02182003-315-201	1	Hall Closet	4" square patterned, brown and beige linoleum	None Detected
T115C-02182003-315-202	2	5	4" square patterned, brown and beige linoleum	None Detected
T115C-02182003-315-203	3	11	2' x 4' white acoustical drop ceiling tile with medium "worm" patterm	None Detected
T115C-02182003-315-204	4	11	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115C-02182003-315-205	5	9	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115C-02182003-315-206	6	9	2' x 4' white acoustical drop ceiling tile with medium "worm" pattern	None Detected
T115C-02182003-315-207	7	9	Drywall only	None Detected
T115C-02182003-315-208	8	10	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115C-02182003-315-209	9	8	Off-white fiberboard with troweled on texture at ceiling deck	None Detected
T115C-02182003-315-210	10	North/South Hall	Off-white fiberboard with troweled on texture at ceiling deck	None Detected

CHEMICAL SAMPLE MAP

Building T115A
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Refer to Page 2 Room Location

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

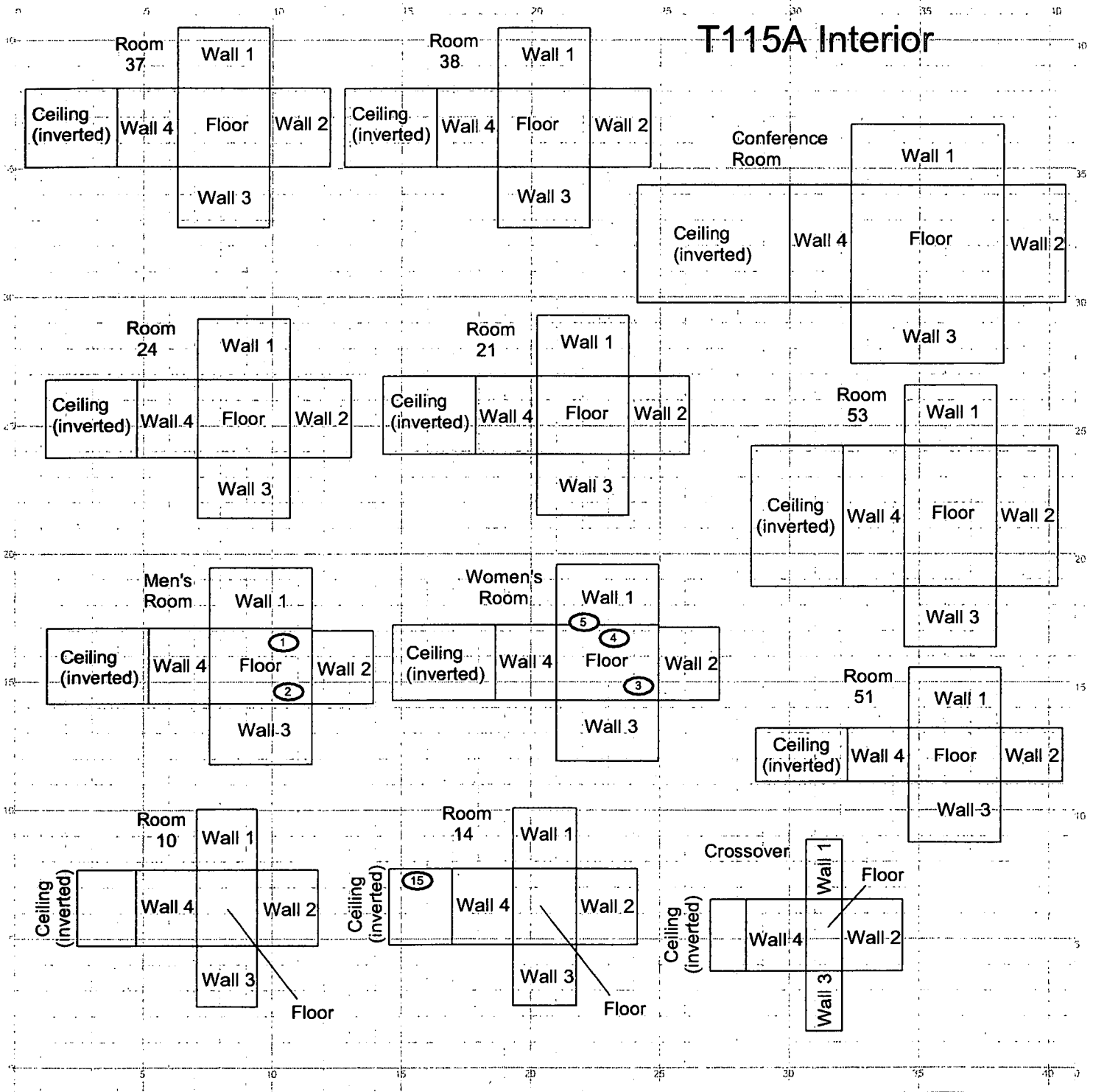
DynCorp
THE ART OF TECHNOLOGY

KAISER-HILL

MAP ID: 02-0589/T115A-IN1-ASB Feb. 24, 2003

CHEMICAL SAMPLE MAP

Building T115A
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Not Applicable

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

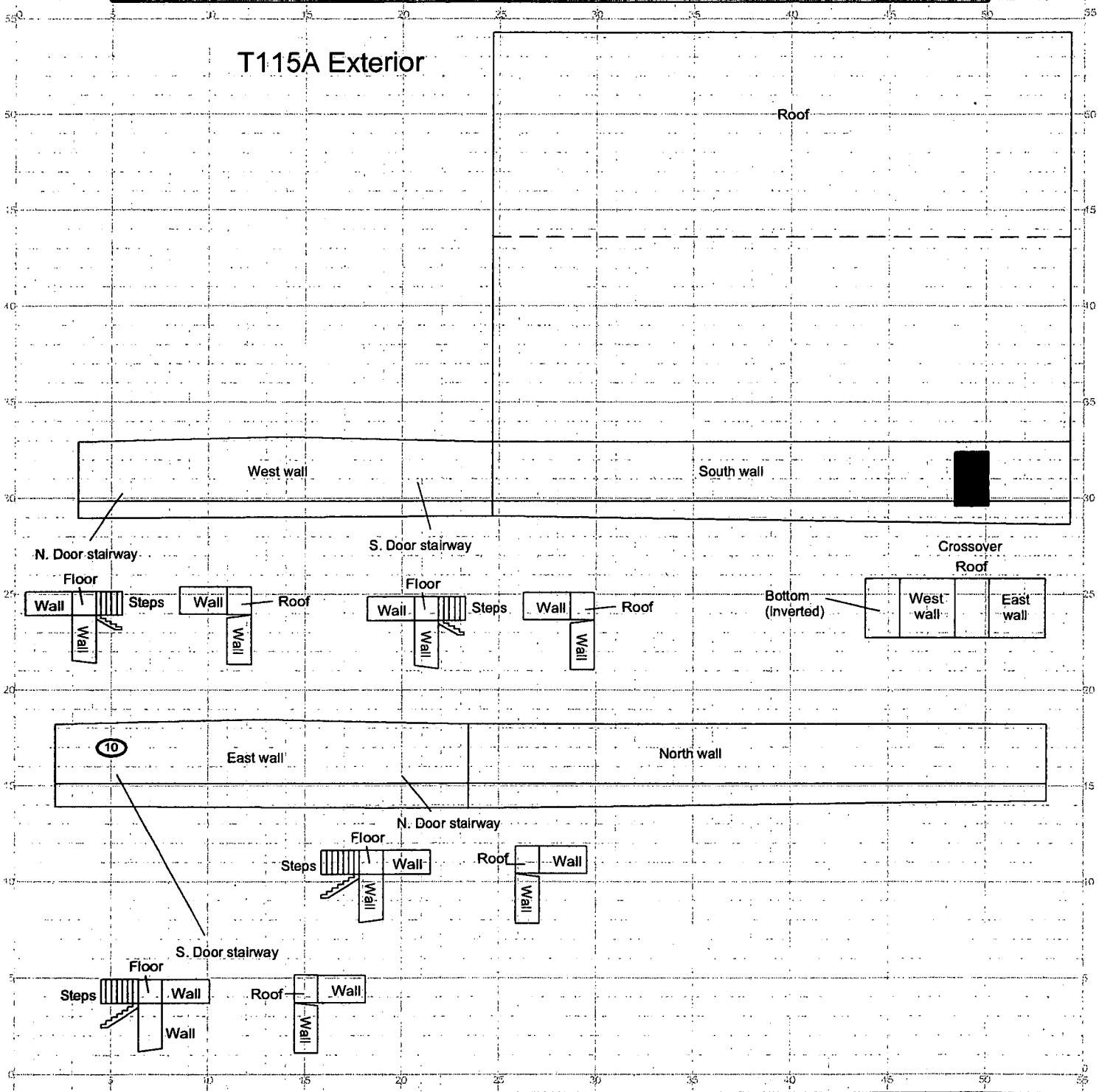
DynCorp
THE ART OF TECHNOLOGY

KAISER-HILL

MAP ID: 02-0589/T115A-IN2-ASB Feb. 24, 2003

CHEMICAL SAMPLE MAP

Building T115A
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Not Applicable

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

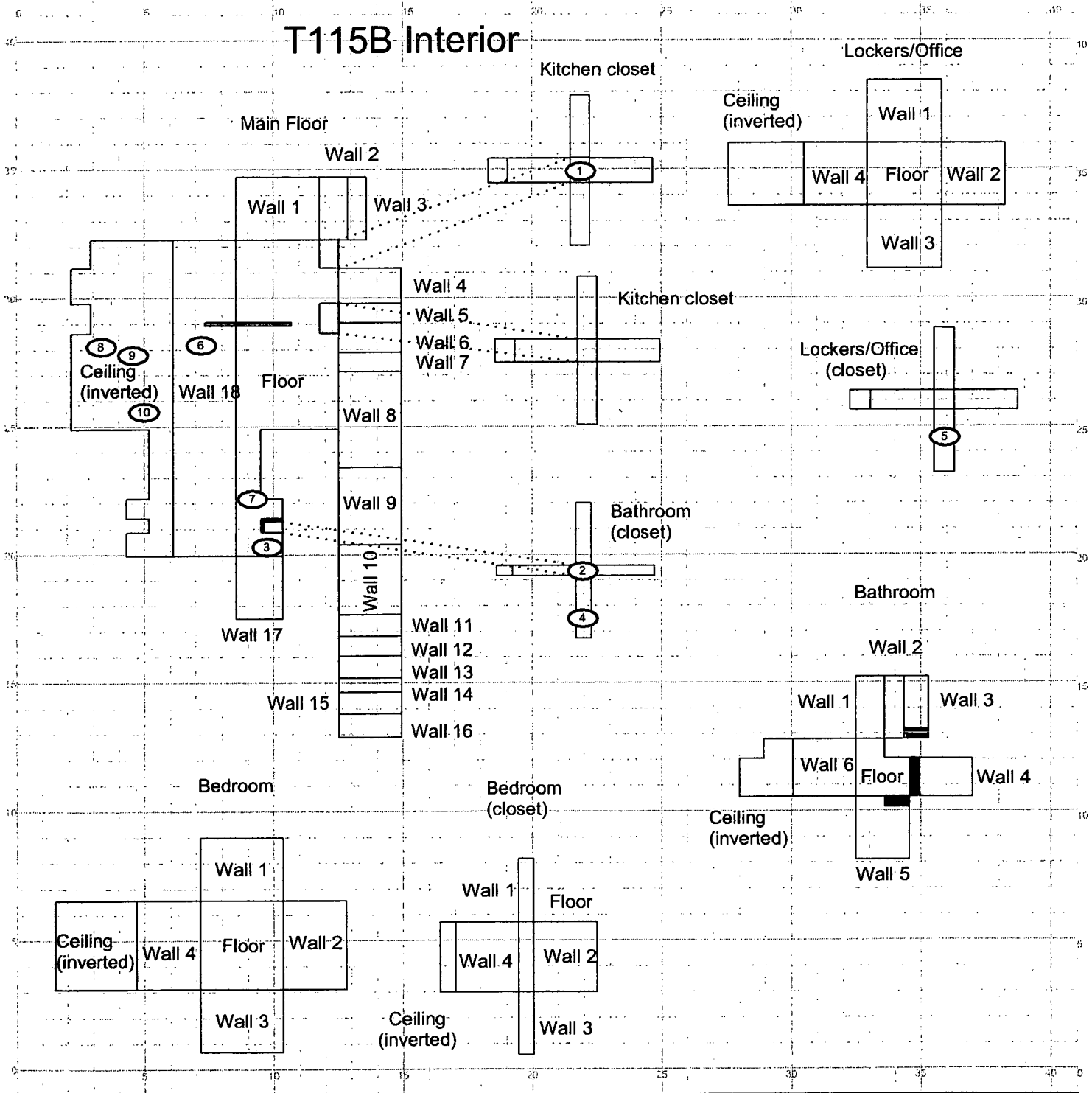
DynCorp
THE ART OF TECHNOLOGY

Prepared for:
KAISER HILL

MAP ID: 02-0589/T115A-EX-ASB Feb. 24, 2003

CHEMICAL SAMPLE MAP

Building T115B
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Refer to Expanded Room Location

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

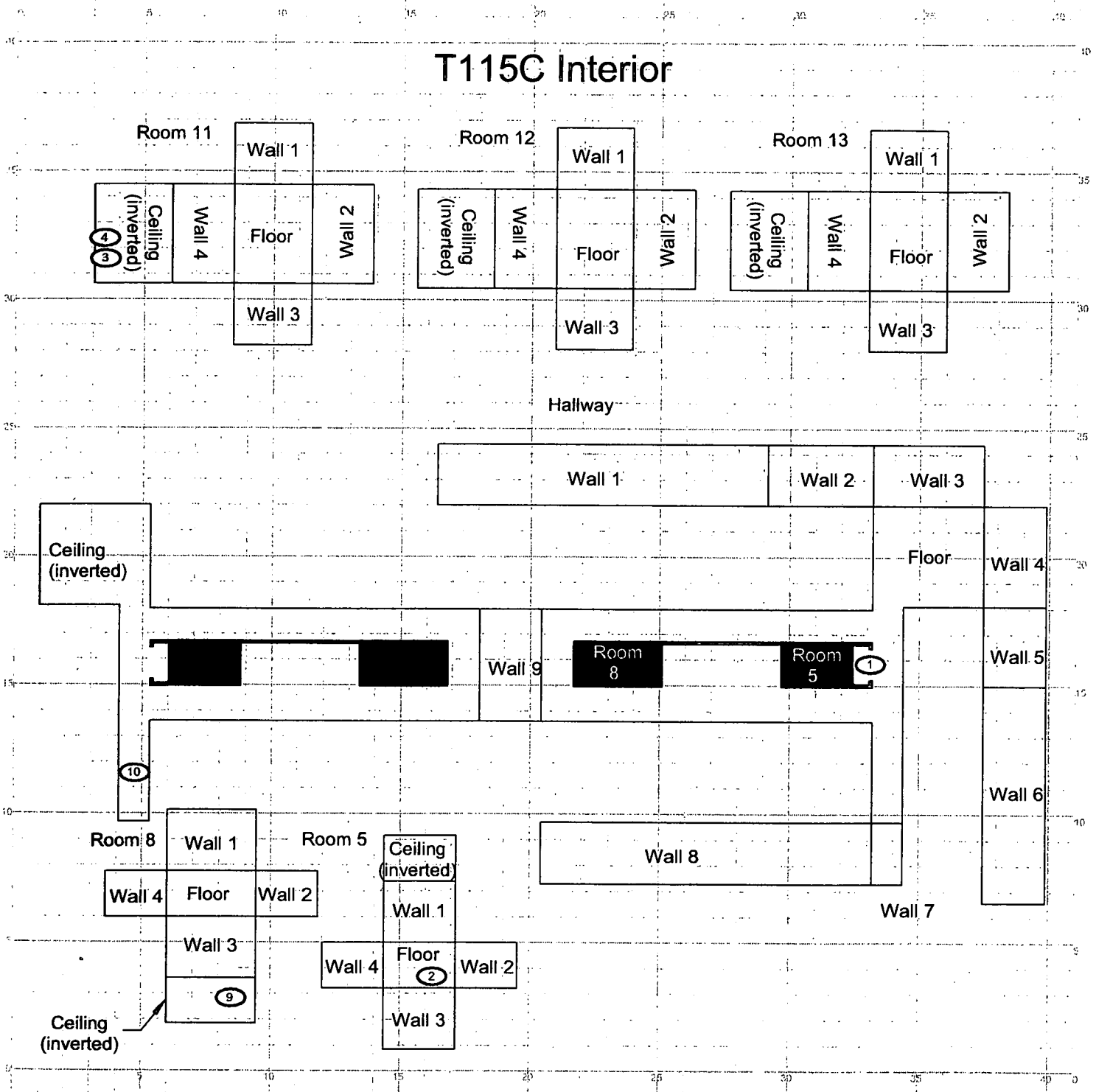
KAISER-HILL

MAP ID: 02-0589/T115B-IN-ASB Feb. 24, 2003

50

CHEMICAL SAMPLE MAP

Building T115C
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Not Applicable

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

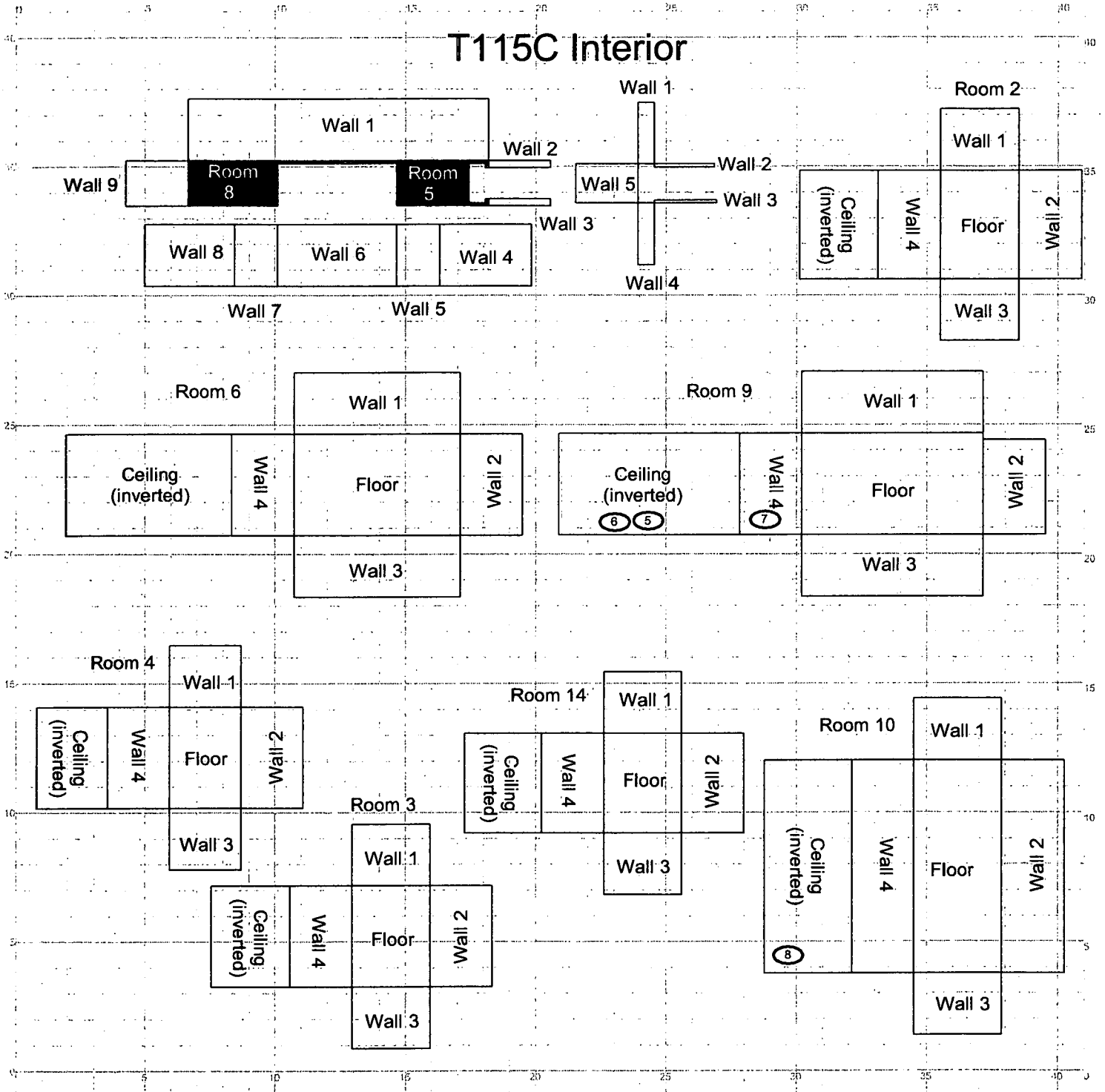
DynCorp
THE ART OF TECHNOLOGY

KAISER-HILL

MAP ID: 02-0589/T115C-IN1-ASB Feb. 24, 2003

CHEMICAL SAMPLE MAP

Building T115C
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Not Applicable

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

KAISER HILL

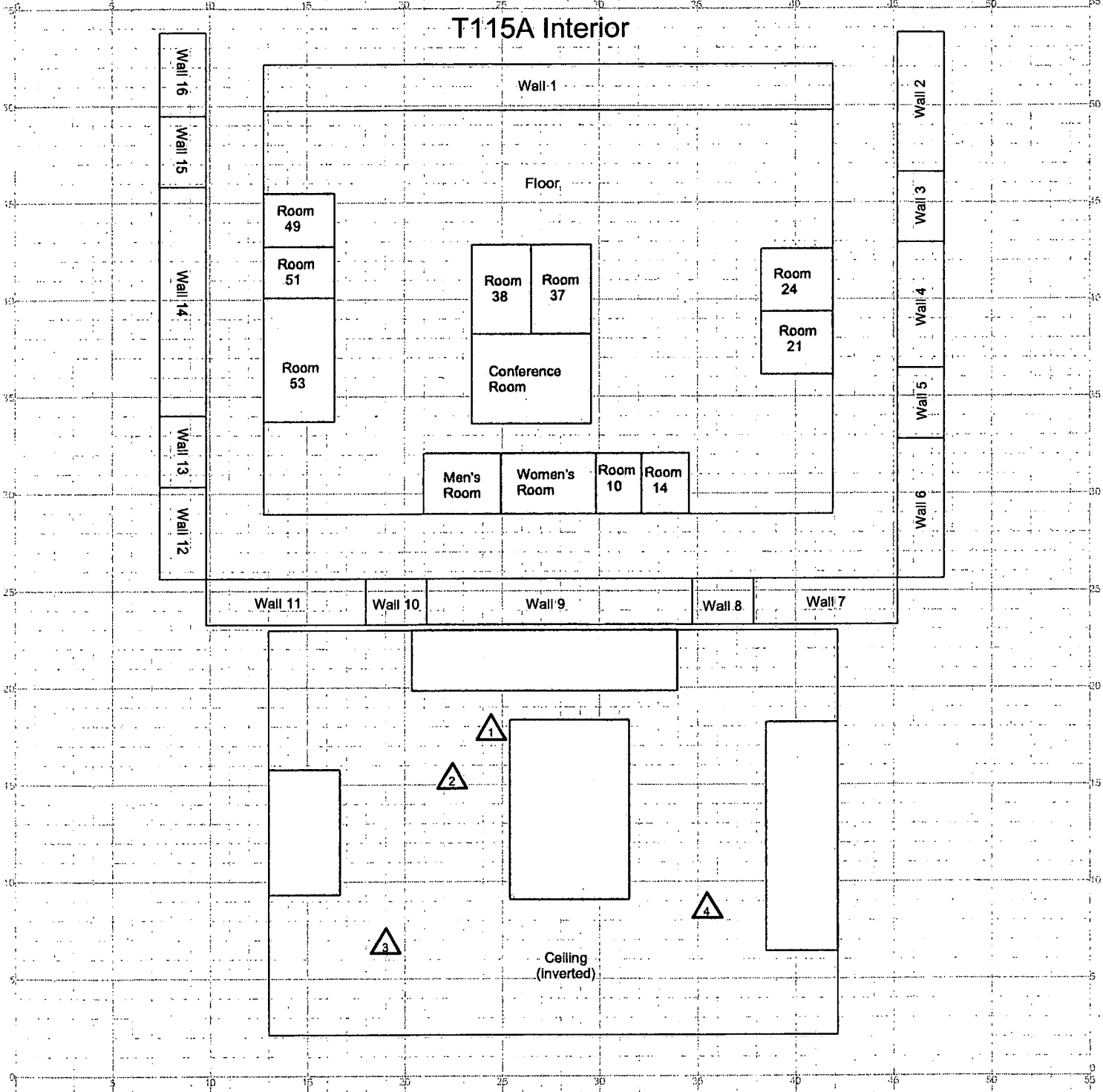
MAP ID: 02-0589/T115C-IN2-ASB Feb. 24, 2003

Beryllium Data Summary

Sample Number	Map Point Location	Room	Sample Location	Result ($ug/100\ cm^2$)
Building T115A – RIN03Z1005				
T115A-02182003-315-101	1	Interior	On fluorescent light fixture	< 0.1
T115A-02182003-315-102	2	Interior	On fluorescent light fixture	< 0.1
T115A-02182003-315-103	3	Interior	On fluorescent light fixture	< 0.1
T115A-02182003-315-104	4	Interior	On fluorescent light fixture	< 0.1
T115A-02182003-315-105	5	14	On fluorescent light fixture	< 0.1
Building T115B – RIN03Z1005				
T115B-02182003-315-101	1	Living Room	Top of 2' x 2' white acoustical drop ceiling tile with 2" squares	< 0.1
T115B-02182003-315-102	2	Living Room	Top of LSDW speaker	< 0.1
T115B-02182003-315-103	3	Kitchen Closet	On 6" white square with black diamond linoleum	< 0.1
T115B-02182003-315-104	4	Locker Room	Top of green locker labeled "Greer"	< 0.1
T115B-02182003-315-105	5	Kitchen	Top of cabinet, west wall	< 0.1
Building T115C – RIN03Z1005				
T115C-02182003-315-101	1	Hall Closet	On 4" square patterned, brown and beige linoleum	< 0.1
T115C-02182003-315-102	2	11	Top of 2' x 4' white acoustical drop ceiling tile	< 0.1
T115C-02182003-315-103	3	9	On fluorescent light fixture	< 0.1
T115C-02182003-315-104	4	10	On fluorescent light fixture	< 0.1
T115C-02182003-315-105	5	8	Top of 2' x 4' white acoustical drop ceiling tile	< 0.1

CHEMICAL SAMPLE MAP

Building T115A
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Refer to Page 2 for Room Location

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

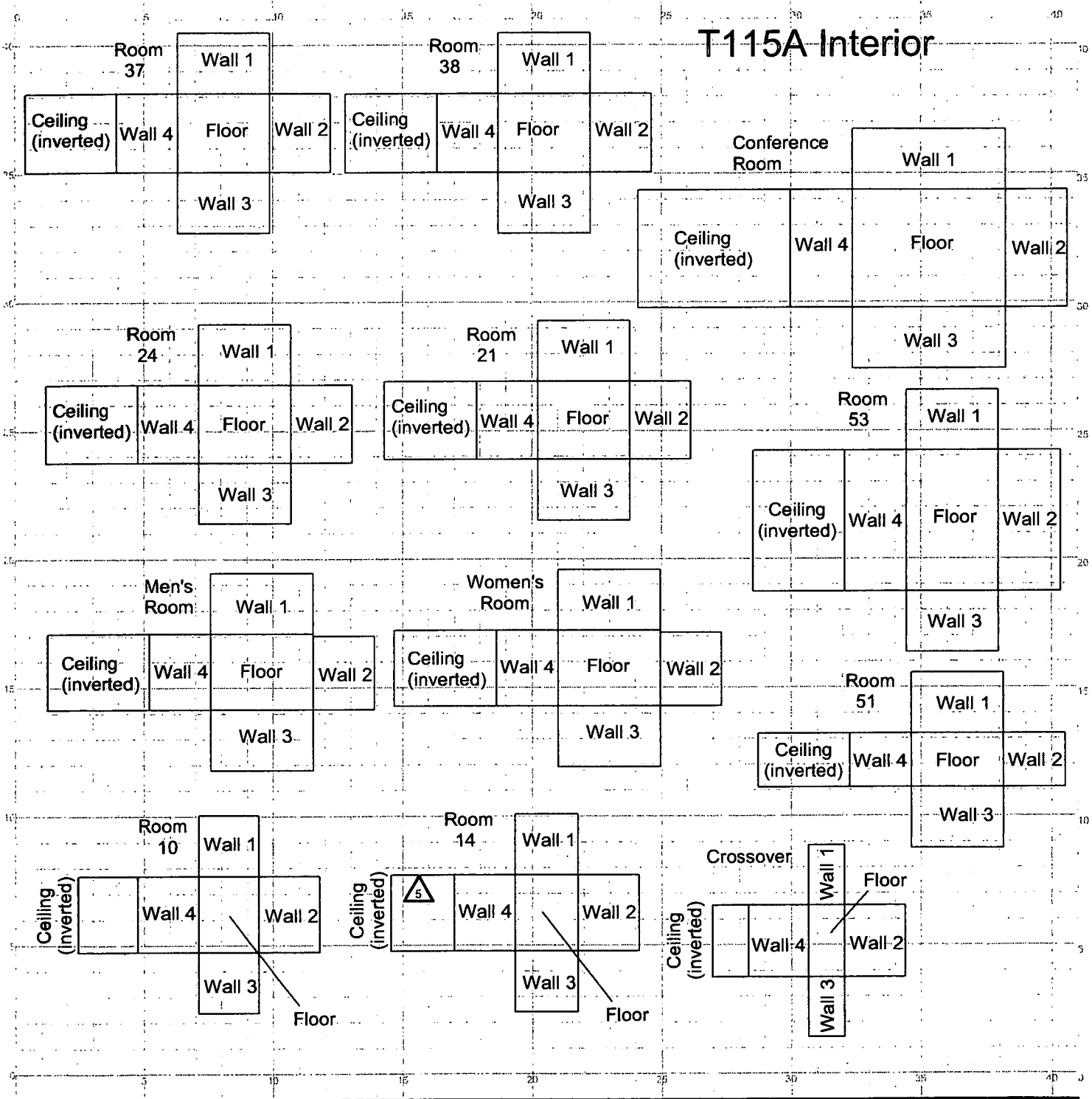
KAISER-HILL

MAP ID: 02-0589/T115A-IN1-BE

Feb. 24, 2003

CHEMICAL SAMPLE MAP

Building T115A
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Not Applicable

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

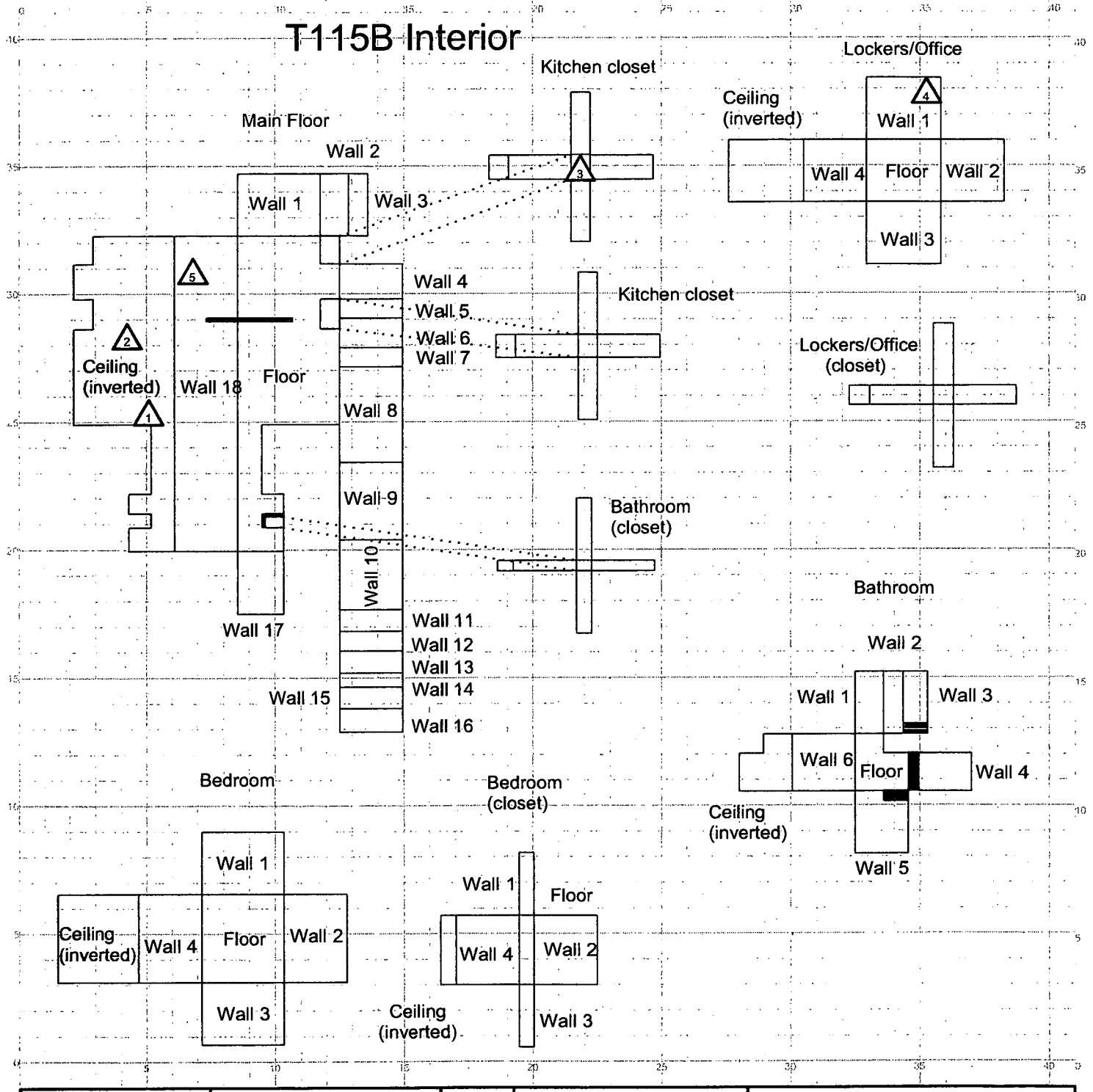
Prepared for: KAISER HILL

MAP ID: 02-0589/T115A-IN2-BE

Feb. 24, 2003

CHEMICAL SAMPLE MAP

Building T115B
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Refer to Expanded Room Location

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

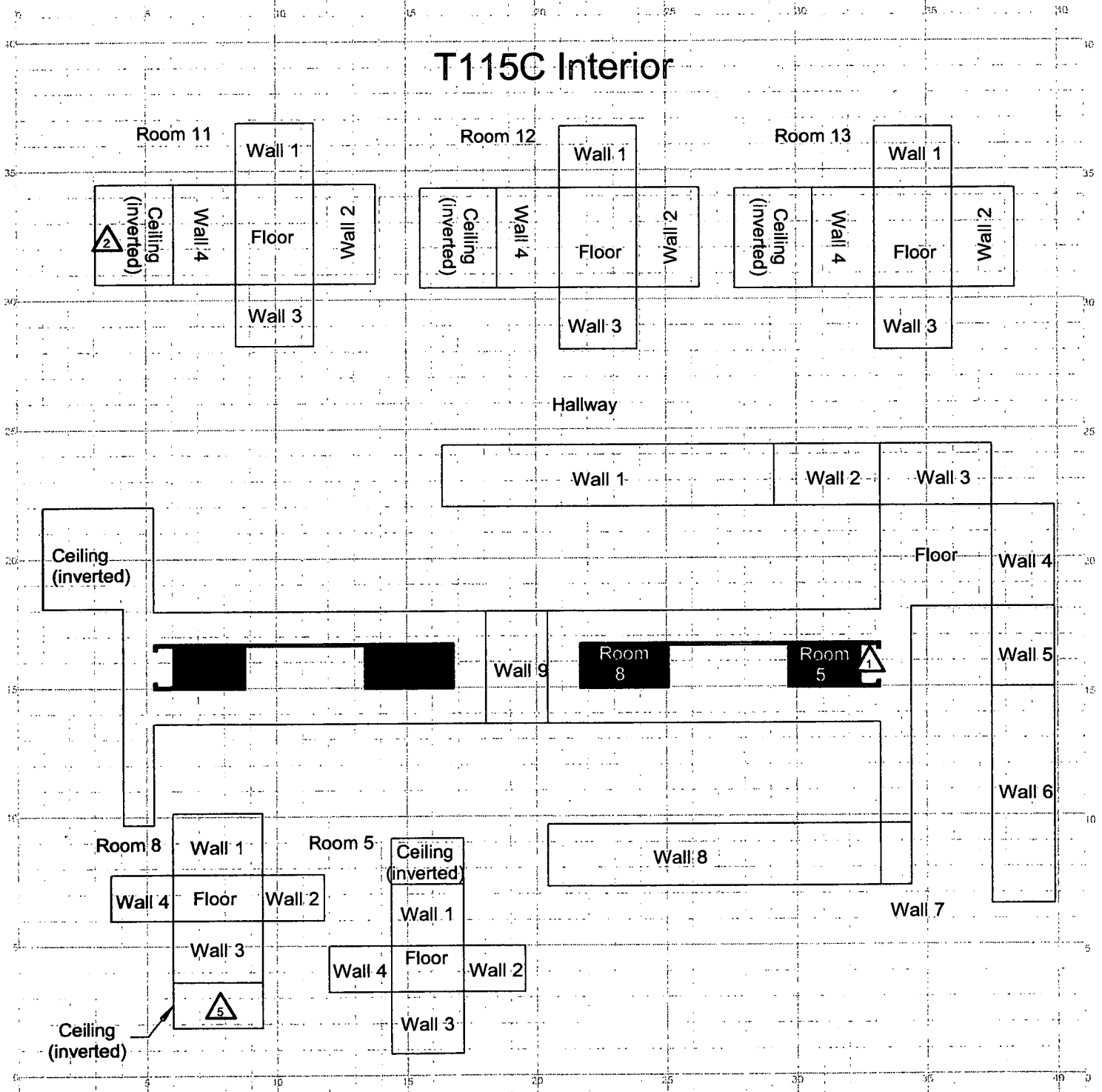
Prepared for: KAISER-HILL

MAP ID: 02-0589/T115B-IN-BE

Feb. 24, 2003

CHEMICAL SAMPLE MAP

Building T115C
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Not Applicable

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for: KAISER HILL

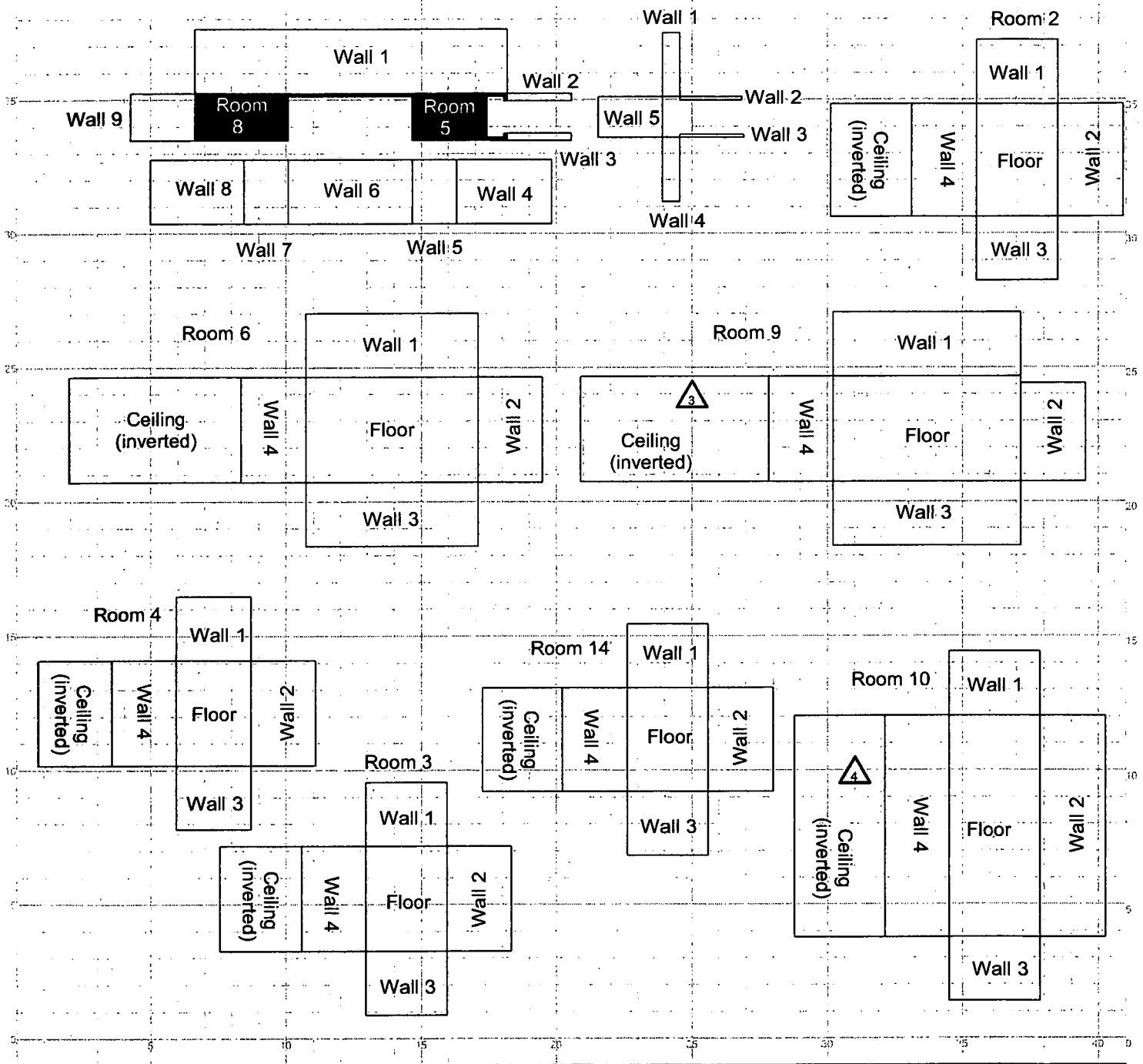
MAP ID: 02-0589/T115C-IN1-BE

Feb. 24, 2003

CHEMICAL SAMPLE MAP

Building T115C
Beryllium

T115C Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Not Applicable

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for: KAISER-HILL

MAP ID: 02-0589/T115C-IN2-BE

Feb. 24, 2003

58

ATTACHMENT E

Data Quality Assessment (DQA) Detail

DATA QUALITY ASSESSMENT (DQA)

VERIFICATION & VALIDATION OF RESULTS

V&V of the data confirms that appropriate quality controls are implemented throughout the sampling and analysis process, and that any substandard controls result in qualification or rejection of the data in question. The required quality controls and their implementation are summarized in a tabular, checklist format for each category of data – radiological surveys and chemical analyses (specifically asbestos and beryllium).

DQA criteria and results are provided in a tabular format for each suite of surveys or chemical analyses performed; the radiological survey assessment is provided in Table E-1, asbestos in E-2, and beryllium in E-3. A data completeness summary for all results is given in Table E-4.

All relevant Quality records supporting this report are maintained in the RISS Characterization Project Files. This report will be submitted to the CERCLA Administrative Record for permanent storage within 30 days of approval by the Regulators. All radiological data are organized into Survey Packages, which correlate to unique (MARSSIM) Survey Units. Chemical data are organized by RIN (Report Identification Number) and are traceable to the sample number and corresponding sample location.

Beta/gamma survey designs were not implemented for the Area 3, Group 5 facilities based on the conservatism of the transuranic limits used as DCGLs in the unrestricted release decision process. Survey designs were implemented based on the transuranic limits used as DCGLs in the unrestricted release decision process. All survey results were evaluated against, and were less than the Transuranic $DCGL_w$ (100 dpm/100cm^2) and the Uranium $DCGL_w$ (5,000 dpm/100cm^2) unrestricted release limits.

Consistent with EPA's G-4 DQO process, the radiological survey design (for those survey units performed per PDS requirements) was optimized by checking actual measurement results (acquired during pre-demolition surveys) against model output with original estimates. Use of actual sample/survey (result) variances in the MARSSIM DQO model confirms that an adequate number of surveys were acquired.

SUMMARY

In summary, the data presented in this report have been verified and validated relative to the quality requirements and project decisions as stated in the original DQOs. All data are useable based on qualifications stated herein and are considered satisfactory without qualification. All media surveyed and sampled yielded results less than their associated action levels and with acceptable uncertainties.

Based upon an independent review of the radiological data, it is determined that the original project DQOs satisfied MARSSIM guidance. All facility contamination levels were below applicable unrestricted release levels. Minimum survey requirements were met, sampling/survey protocol was performed in accordance with applicable procedures, survey units were properly designed and bounded, and instrument performance and calibration was verified as acceptable. All results meet the PDS unrestricted release criteria.

Chain of Custody was intact; documentation was complete, hold times were acceptable (where applicable,) and packaging integrity/custody seals were maintained throughout the sampling/analysis process. Level 2 Isolation Controls have been posted to prevent the inadvertent introduction of contamination into the facility. On this basis, the Area 3, Group 5 facilities meet the unrestricted release criteria with the confidences stated herein.

61

Table E-1 V&V of Radiological Surveys - Area 3 Group 5 Facilities

V&V CRITERIA, RADIOLGICAL SURVEYS		K-H RSP 16.00 Series MARSSIM (NUREG-1575)		
QUALITY REQUIREMENTS				
	Parameters	Measure	Frequency	COMMENTS
ACCURACY	initial calibrations	90%<x<110%	≥1	Multi-point calibration through the measurement range encountered in the field; programmatic records.
	daily source checks	80%<x<120%	≥1/day	Performed daily/within range.
	local area background: Field	typically < 10 dpm	≥1/day	All local area backgrounds were within expected ranges (i.e., no elevated anomalies.)
PRECISION	field duplicate measurements for TSA	≥5% of real survey points	≥10% of reals	N/A
REPRESENTATIVENESS	MARSSIM methodology: Survey Units 115A-A-001, 115B-A-002, 115C-A-003 (interior) and EXT-B-001 (exterior).	statistical and biased	NA	Random w/ statistical confidence.
	Survey Maps	NA	NA	Random and biased measurement locations controlled/mapped to ±1m.
	Controlling Documents (Characterization Pkg; RSPs)	qualitative	NA	Refer to the Characterization Package (planning document) for field/sampling procedures (located in Project files); thorough documentation of the planning, sampling/analysis process, and data reduction into formats.
COMPARABILITY	units of measure	dpm/100cm^2	NA	Use of standardized engineering units in the reporting of measurement results.
COMPLETENESS	Plan vs. Actual surveys usable results vs. unusable	>95% >95%	NA	See Table E-4 for details.
SENSITIVITY	detection limits	TSA: ≤50 dpm/100cm^2 RA: ≤10 dpm/100cm^2	all measures	MDAs ≤ 50% of the DCGL$_w$ per MARSSIM guidelines.

Table E-2 V&V of Asbestos Results – Area 3 Group 5 Facilities

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
ASBESTOS	METHOD: EPA 600/R-93/116	LAB ---->	Reservoirs Environmental, Inc	
QUALITY REQUIREMENT		RIN ---->	RIN03Z1004	
		Measure	Frequency	COMMENTS
ACCURACY	Calibrations: Initial/continuing	below detectable amounts	≥1	Semi-quantitative, per (microscopic) visual estimation.
PRECISION	Actual Number Sampled LCSD Lab duplicates	all below detectable amounts	≥ 37 samples	Semi-quantitative, per (microscopic) visual estimation.
REPRESENTATIVENESS	COC	Qualitative	NA	Chain-of-Custody intact: completed paperwork, containers w/ custody seals.
	Hold times/preservation	Qualitative	NA	N/A
	Controlling Documents (Plans, Procedures, maps, etc.)	Qualitative	NA	See original Chemical Characterization Plan (planning document); for field/sampling procedures (located in project file;) thorough documentation of the planning, sampling/analysis process, and data reduction into formats.
COMPARABILITY	Measurement Units	% by bulk volume	NA	Use of standardized engineering units in the reporting of measurement results.
COMPLETENESS	Plan vs. Actual samples Usable results vs. unusable	Qualitative	NA	See Table E-4; final number of samples at Certified Inspector's discretion.
SENSITIVITY	Detection limits	<1% by volume	all measures	N/A

Table E-3 V&V of Beryllium Results – Area 3 Group 5 Facilities

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
BERYLLIUM	Prep: NMAM 7300 METHOD: OSHA ID-125G	LAB ---->	Johns Manville, Littleton, Co.	
QUALITY REQUIREMENTS		RIN ---->	RIN03Z1005	
		Measure	Frequency	COMMENTS
ACCURACY	Calibrations Initial	linear calibration	≥1	No qualifications significant enough to change project decisions, i.e., classification of Type 1 facilities confirmed. All results were below associated action levels.
	Continuing	80%<%R<120%	≥1	
	LCS/MS	80%<%R<120%	≥1	
	Blanks - lab & field	<MDL	≥1	
	interference check std (ICP)	NA	NA	
PRECISION	LCSD	80%<%R<120% (RPD<20%)	≥1	
	field duplicate	all results < RL	≥1	
REPRESENTATIVENESS	COC	Qualitative	NA	
	hold times/preservation	Qualitative	NA	
	Controlling Documents (Plans, Procedures, maps, etc.)	Qualitative	NA	
COMPARABILITY	measurement units	ug/100cm^2	NA	
COMPLETENESS	Plan vs. Actual samples usable results vs. unusable	>95% >95%	NA	
SENSITIVITY	detection limits	MDL of 0.012 ug/100cm^2	all measures	

Table E-4 Data Completeness Summary - Area 3 Group 5 Facilities

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Asbestos	T115A (interior and exterior)	9 biased (interior and exterior)	17 biased (16 interior/1 exterior)	No ACM present, all results < 1% by volume	40 CFR763.86; 5 CCR 1001-10; EPA 600/R-93/116 RIN03Z1004
Asbestos	T115B (interior)	9 biased (interior)	10 biased (interior)	No ACM present, all results < 1% by volume	40 CFR763.86; 5 CCR 1001-10; EPA 600/R-93/116 RIN03Z1004
Asbestos	T115C (interior)	9 biased (interior)	10 biased (interior)	No ACM present, all results < 1% by volume	40 CFR763.86; 5 CCR 1001-10; EPA 600/R-93/116 RIN03Z1004
Beryllium	T115A (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1005 No results above action level (0.2ug/100cm^2) or investigative level (0.1 ug/100cm^2).
Beryllium	T115B (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1005 No results above action level (0.2ug/100cm^2) or investigative level (0.1 ug/100cm^2).
Beryllium	T115C (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1005 No results above action level (0.2ug/100cm^2) or investigative level (0.1 ug/100cm^2).

Table E-4 Data Completeness Summary - Area 3 Group 5 Facilities

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area 3 Survey Unit: 115A-A-001 T115A (interior)	25 α TSA (15 random/10 biased) and 25 α Smears (15 random/10 biased) 20 α TSA and 20 α Smears (equipment) 3 QC TSA 5% scan	25 α TSA (15 random/10 biased) and 25 α Smears (15 random/10 biased) 20 α TSA and 20 α Smears (equipment) 3 QC TSA 5% scan	No elevated contamination at any location; all results below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable.
Radiological	Survey Area 3 Survey Unit: 115B-A-002 T115B (interior)	25 α TSA (15 random/10 biased) and 25 α Smears (15 random/10 biased) 10 α TSA and 10 α Smears (equipment) 2 QC TSA 5% scan	25 α TSA (15 random/10 biased) and 25 α Smears (15 random/10 biased) 10 α TSA and 10 α Smears (equipment) 2 QC TSA 5% scan	No elevated contamination at any location; all results below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable.

Table E-4 Data Completeness Summary - Area 3 Group 5 Facilities

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area 3 Survey Unit: 115C-A-003 T115C (interior)	25 α TSA (15 random/10 biased) and 25 α Smears (15 random/10 biased) 10 α TSA and 10 α Smears (equipment) 2 QC TSA 5% scan	25 α TSA (15 random/10 biased) and 25 α Smears (15 random/10 biased) 10 α TSA and 10 α Smears (equipment) 2 QC TSA 5% scan	No elevated contamination at any location; all results below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable.